POVERTY, HUMAN DEVELOPMENT AND FINANCIAL SERVICES

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Executive Summary

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Executive Summary

Access to informal credit is nearly universal, while formal credit is restricted because of risk and transaction costs. This has consequences for human development because finance can contribute to development by facilitating entrepreneurship among the poor and increasing their capacity to manage risk.

However, finance has an unstable history and overborrowing is a real temptation for governments and for individuals. Overborrowing and imprudent lending tend to retard development because each is ultimately unsustainable. Debt is easy to disburse; debt capacity, based on the ability to service debt, is more difficult to create. Donor-supported credit programmes for target groups such as the poor have broadly failed the sustainability test because of faulty financial strategies and lack of attention to risk and its management. As a consequence, income poverty has seldom been alleviated through credit projects. Capability poverty could be attacked through financial market development, but government policy often impedes activity of this type that could assist the poor.

Microfinance programmes developed since the 1980s appear to offer attractive potential for sustainability but require intense attention to financial technology and

pricing. Linking nonfinancial services to credit programms has proved popular, but minimalist strategies may be more easily replicable and sustainable. However, in microfinance transparency is low and hype is high, which in the past has not been a formula for durable results from donor assistance. While microfinance can reach large numbers of poor people, it is unlikely to be capable of sustainable outreach to the very poor.

Credit impact studies are generally affected by technical, logical and data shortcomings. As a result, it is not possible to state categorically that credit alleviates poverty, although credit always has an impact. Positive impacts can surely assist borrowers.

Intervention motivated by concern for market failure appears never to have created a viable credit program in a developing country. This public policy approach to credit programmes should be abandoned. Attention to the operation of financial markets and how financial innovation occurs can assist donors to improve their intervention in these markets to assist the poor.

A. The Universality of Credit and Debt

Credit is virtually universal. Even small children borrow from and lend to each other, just as their parents do. These transactions are called "informal" because the lender is not a financial institution formally chartered and supervised by a government body. Informal financial relationships have several bases. The most common are kinship and friendship. These provide a framework for trust, which underlies all financial relationships, as suggested by the Latin root *credere*, to entrust or believe, from which English derives "credit" and similar words such as "creed."

1. Why Informal Finance Is Inclusive

Informal credit occurs within a framework of trust created by other, existing relationships and is therefore frequently complex (Hospes). For example, kinship and friendship credit may be somewhat open-ended in the sense that prompt repayment may be subordinated to larger obligations of reciprocity with the expectation that the borrower will be prepared to help the lender upon request. This larger context means that every such credit relationship is also an insurance device. Udry (1990) discovered in rural Northern Nigeria that borrowers who suffered a shock took longer to repay their informal creditors than borrowers who suffered no adversity, while lenders who suffered a shock tended to be repaid more quickly than those who did not.

Further bases for informal credit include buyer-seller relationships. Sellers frequently offer delayed payment terms to their clients, which characterizes trade credit around the world. Buyers may provide credit to sellers of services: in tailoring the customer often provides the cloth and in job shop printing in many countries buyers customarily provide

paper. These informal commercial transactions usually occur within larger relationships created by business ties, often long-standing. Special terms describe these relationships, from "regular customer" or "valued client" in American English, *suki* in the Philippines, and *dumbunya* for "proper one" or "correct one" in Amharic. Buyers having these relationships often get better prices and better service than do occasional clients and strangers.

A third sort of informal credit is based on land and labor. Landlords may provide inputs to tenants in exchange for a share of the harvest. As relatively better-off people, landlords may also be in a position to lend to their tenants and others in emergencies, for important ceremonies or for subsistence in difficult times. In this way it is clear that informal credit keeps many poor people alive (Darling).

However, perpetual indebtedness is also a possibility, including bonded labor arising from a loan so large relative to earning power that it may be very difficult for a poor person to repay. The debtor or a member of the debtor's family may have to work for the creditor for many years simply to pay the interest. These types of situations that are created out of desperation, as opposed to poor choices and lack of judgment on the part of borrowers as exemplified by profligacy or speculation, have become relatively rare. Vifgage or "living pledge" is an unknown term today, while mortgage remains common parlance. Cases that remain are found largely in the Subcontinent, where they receive considerable attention in the press (International Herald Tribune).

It is sometimes held that rural indebtedness is in effect an advance purchase or sale of the debtor's land, which eventually ends up in the possession of the creditor (Bhaduri). However, in these cases returns from agriculture are often low, risks are high and larger growers can obtain better prices on inputs by bulk purchases and on produce by delivering large quantities to traders. These factors leave many small, poor operators only a very slim margin above subsistence (Jazairy, Alamgir and Panuccio). This means that they are susceptible to starvation or may have to abandon agriculture in any event. Credit in this situation simply softens or postpones the inevitable restructuring of the agrarian society and economy caused by production and marketing relationships that work against small operators. This process of marginalization has characterized the transformation of agriculture in developed countries throughout the 20th century. It is also documented in developing countries that informal lenders including landlords face high credit risks and that the returns from such lending are often quite modest (Singh, Wilmington)

Informal finance also includes many other lenders and arrangements. Examples consist of professional moneylenders around the world, unregulated pawnbrokers in many countries, moneykeepers who are trusted individuals in West Africa offering socially and physically secure storage facilities, and group arrangements known as RoSCAs (Adams and Fitchett; Carstens; Shipton).

RoSCAs are rotating savings and credit associations (Bouman, 1977). They are very popular: research in Egypt found that a majority of Egyptians in all walks of life belong to them (Baydas, Bahloul and Adams) as also occurs in Ethiopia and among women in

Bolivia (Adams and de Sahonero). RoSCAs are found in virtually all countries under a wide variety of names. Indigenous to most developing countries, they are found among immigrant groups in wealthier countries. One that meets in Washington DC is composed of IMF staff members. RoSCAs also developed in some communist European countries, apparently independently.

Their basic form consists of a group of members who are known to each other, periodic meetings at which each member contributes an agreed sum of money to the pot or "hand," which is immediately awarded to a "nonprized" member, one who has not already received a hand. Rotation occurs as nonprized members are savers while prized members are repaying their loan. The order of rotation -- who gets the hand when -- may be predetermined or by lot or by auction. After all members have received a hand the group disbands or starts over. RoSCAs are versatile, generally robust, often most popular among women (Ardener and Burman), and exhibit tremendously sophisticated responses to the concerns of their members and the risks they face. As a result, there are many variants on the basic model.

Informal finance is often considered generally exploitative and inferior to formal finance, but condemnations are usually made by people who do not participate in these markets (Bouman, 1989). Their positions are frequently based on incomplete information, bias against informal private activity, a redistributive agenda, or on sensational abuses, such as a moneylender's abducting an indebted farmer's teenage daughter. Widespread, virtually universal participation and long-standing relationships suggest another face (Adams and Fitchett; Bouman, 1977; Bouman and Hospes). Informal finance is sometimes wrongly regarded as a response to failure in formal finance. However, this confuses the chronology: informal arrangements preceded formal ones by tens of centuries and are clearly the economically rational and natural type of saving and credit institution for most people alive today. Informal finance is overwhelmingly voluntary and sustainable.

2. Why Formal Finance Is Exclusive

Formal finance involves lenders and deposit-takers who operate under charters provided by government. Some providers of formal financial services, such as credit unions and commercial banks, are regulated and supervised by government agencies such as the central bank. Others, such as consumer finance companies, are not although they remain subject to usury laws. Regulation is defended as a means of protecting the deposits of the public, which are often insured implicitly or explicitly by government. Deposit insurance has generally performed well in nominal terms, although in real terms many savers have lost large amounts due to government-induced inflation and government-controlled interest rates. Regulation has a mixed record. It has failed massively in a number of countries such as the US and France with respect to banks and thrift institutions, and in Japan with respect to credit unions and to bank lending for urban real estate. More than 20 national banking regulators, led by the Bank of England, failed to act in a timely manner in the collapse of BCCI.

The advantages of formal finance lie in scale. Large systems tend to gather relatively small deposits from households and others in their hinterlands, which they bulk and lend to firms in relatively larger amounts in money centers, facilitating investment. They operate payments systems efficiently, transferring funds quickly, safely and at very low cost, facilitating commerce and transfers to and from governments. They provide a large bundle of services, offering economies of scope to households and firms. Working on a large scale they minimize transaction costs and also create economically rational interest rates over time and space. Large systems gain a tremendous amount of information about risk, which enables them to manage risk in credit transactions through screening, incentives and sanctions, greatly benefiting society.

In spite of these great advantages, large financial systems often appear to exhibit relatively little interest in the small end of the market where poor people operate, leaving this territory to informal operators. However, recent evidence indicates that commercial banks provide the majority of formal loans to microentrepreneurs in many countries and regions (Almeyda; Hulme and Mosley; World Bank, 1996). Many poor people have deposits in financial institutions and a large number use the payments system through money orders. However, they are much less likely to be able to obtain credit (Patten and Rosengard).

The mechanics of credit exclusion are determined by transaction costs and interest rates (Ladman). Informal commercial credit involves very low transaction costs because business is conducted face-to-face, with little documentation, quickly and between people who know each other. However, interest rates are high because risks are high, money is scarce, and competition is often limited. (Kinship and friendship credit is often interest-free, and does not figure in this analysis.)

Formal finance has the opposite characteristics: low interest rates and "high" transaction costs. Interest rates are low because large reservoirs of household savings are effectively tapped and risk management is mastered to a high degree. Transaction costs are high because of the nature of large systems and because of structural factors that are often heavily influenced by government policy.

An important source of transaction costs is the gathering and processing of information required to screen loan applicants who are not intimately known to lenders. Borrowers have to be monitored; extensive documentation is required to run large organizations and to create valid legal claims. Specialized, skilled staff are also required. The transaction costs of deposit-taking are also important. These include part of the cost of branch networks, maintaining and managing large amounts of noninterest-earning cash, and recordkeeping.

Regulated financial intermediaries incur compliance costs that arise from having to satisfy regulations and providing proof of doing so. Regulation thus creates transaction costs. It may also restrict credit at the small end of the market when regulators are more risk-averse than lenders, discouraging them from taking on borrowers whose capacity to repay appears uncertain. This has worked against small business lending in the US, for

example, especially in economic downturns or in periods when banks are incurring losses or earning abnormally low returns. US authorities have otherwise placed great pressure on bankers to lend to the poor (Fishbein), at significant costs to all who use banks.

Finally, transaction costs may be artificially high when formal financial markets are not competitive. Entry into formal financial intermediation is usually restricted by high capital requirements and other regulations. Markets may be small in developing countries, and many governments favor a banking market structure consisting of a few large banks which are easier to regulate and control than a system based on numerous small institutions. Such a system, at first glance, may be able to pool and hence manage risks more effectively than a system having a majority of tiny institutions. However, decentralized systems have developed risk sharing mechanisms that reduce these risks.

From the perspective of serving the poor, one important disadvantage of large institutions with extensive branch networks, relative to a decentralized system of smaller institutions, is that staff turnover in branches in poor areas may be high. Good managers want to move up to larger branches. Many want to live in big cities where there are cultural benefits such as good schools for their children and more people with similar background and interests. Assignment to small branches in remote or poor areas is sometimes used to discipline managers who have displeased their superiors. The unfortunate impact of this stigmatization of small, remote branches is that the lending institution fails to build up detailed knowledge of its clients in these areas and has little incentive to attempt to engage prospective clients. Local perspective is important (Garson). A more decentralized system of smaller banks in which such branches are the norm and provide good prospects for locally-recruited staff could be much more effective in engaging the poor.

But to return to the economics of transaction costs, interest rates and the mechanics of exclusion: transaction costs are not closely related to loan size. The costs of putting a $100, a $1000, a $10,000 and a $100,000 loan on the books are not greatly different. This prompts lenders to favor larger borrowers. Borrowers also incur transaction costs in applying for loans. Information must be provided, documents must be obtained, and time and effort expended.

For large borrowers the transaction costs of formal loans are trivial, while for those taking very small loans they are large. Research on small scale agricultural finance has found that the applicant's costs of obtaining a loan may equal a significant portion of the size of the loan, such as 30% or more (Adams and Nehman; Ahmed). Poor people are additionally discouraged from obtaining formal credit because transaction costs of applying for credit are incurred before the outcome of their application is known. Material sums, time and effort can be spent in applying for a loan, only to have the application rejected. These differing characteristics determine the frontier between formal and informal credit markets. Poor people tend rationally to gravitate toward informal transactions while these seeking larger loans tend to find formal lenders the better choice.

B. The Power of Credit and the Scourge of Debt

Credit clearly has tremendous power. This power deserves close scrutiny in the quest to promote human development. Credit can be used constructively or irresponsibly, presenting choices to all who control it as borrowers or lenders. Constructive use of credit results in innovation, productive investment, and other expenditures that improve human welfare. This process can be greatly assisted by lenders who manage risk well and who compete to devise innovative means of attracting deposits and making loans previously considered too costly.

The role of credit is explored here on several levels, beginning with the macroeconomy, proceeding to the microeconomy of the firm, household or individual, and to efforts at human development.

1. Finance and Economic Growth

Finance matters in economic development (Fry, 1995), without which human development is retarded in the long run (UNDP, 1996; World Bank, 1990) or which may not be achievable without human development (Jazairy, Alamgir and Panuccio). Financial services supplied broadly and efficiently accelerate economic growth, increase the efficiency of resource allocation, and improve the distribution of wealth. But, economists dispute the importance of financial markets (King and Levin, 1993a; Pagano; Gertler and Rose). Economic theory in the 19th century held that money and financial structures do not influence aggregate output and relative prices. But the idea that the efficient performance of the financial system can promote economic growth was recognized by economists by the turn of this century. Schumpeter (1911), in particular, claimed that financial intermediaries mobilizing savings, evaluating projects, diversifying risk, monitoring managers of indebted firms, and facilitating transactions are essential for technological innovation and economic growth.

Surprisingly, economic growth models that emerged after World War II from the Harrod-Domar and from Solow-neoclassical traditions completely ignored financial processes. At best, the view was that, "Where enterprise leads, finance follows" (Robinson, 1952). At worst, Keynesian emphasis on the substitution effect of growth in idle money holdings instead of growth in productive capital, as alternative forms of accumulating wealth, suggested that financial development may retard growth (Tobin). Post-World War II policies in developing countries were sharply influenced by these pessimistic views about finance: direct promotion of physical capital accumulation through government intervention in financial and other markets drove development strategies. These policies "repressed" financial markets and curtailed their contributions to economic growth. (Financial markets are repressed when they are smaller than the size that would enable them to make their optimum contribution to economic growth.)

These views and policies were eventually challenged. McKinnon (1973) stressed that in the developing world complementarity between financial development and capital accumulation may be more important than idle money-physical capital substitution. Shaw (1973) emphasized the growth- enhancing attributes of financial deepening through its impact on market integration. (Financial deepening occurs when the financial sector grows more rapidly than the economy.) Both Shaw and McKinnon incorporated money and finance in models relevant for developing countries, highlighting the growth-reducing and distorting effects of financial repression. Their work influenced the financial policy reforms of the following two decades.

According to these views the financial system is a key component of the institutional infrastructure required to reduce transaction costs and for the efficient operation of all markets. Indeed, the most important contribution of finance may be its ability to foster larger and more integrated markets, which are indispensable for the division of labor and specialization, greater competition, use of modern technologies, and economies of scale and of scope. These are powerful mechanisms for increasing productivity (Saint Paul).

The expansion and further integration of markets for goods and services, assets, and factors of production is achieved through monetization of the economy and efficient management of the payments system, through intermediation between savers and investors, and through mechanisms offering stores of value, the management of liquidity, and the transformation, sharing, pooling, and diversification of risk (Long). These financial services are so critical for the operation of the economy that there is a clear social interest in the development of efficient and stable financial markets. High social costs emerge when financial markets are taxed and distorted in pursuit of nonfinancial objectives.

In addition to facilitating all markets, a financial system contributes to economic growth and development by mobilizing savings and by allocating them efficiently across investment projects. Efficient financial markets help select the best possible uses of available resources through the disciplining role of interest rates and the monitoring of borrowers as lenders ensure that their funds are used profitably, that contracts are enforced, and that loans are repaid as promised (Stiglitz). Monitoring is frequently too expensive for individual savers lacking other attractive uses for their funds, while gathering information on investment projects is an activity of financial intermediaries. This specialization and the resulting economies of scale give these intermediaries an advantage in screening and monitoring investment projects and in selecting those that bring most value to the economy (Greenwood and Jovanovic). The selection of projects with higher marginal productivity results in more rapid growth. Financial intermediaries transfer purchasing power from those with resources in excess of their present consumption or of their own productive opportunities, to agents with better investment options who seek credit or additional ownership capital.

In this manner financial intermediaries channel resources from producers, activities, and regions with limited growth potential to those where a more rapid expansion of output is possible, thereby accelerating economic growth. In the process these markets

provide insurance to risk-averse savers and investors through mechanisms such as portfolio diversification. By diminishing transaction costs and the impact of risk on individuals, financial services increase the attractiveness of savings and investment, further contributing to growth. Finance also contributes to growth by enabling firms and households to share risks. When households set aside liquid assets such as cash for unforeseen outlays, they cannot allocate this purchasing power to higher-return but less liquid investments. Not every household needs funds for emergencies or special opportunities at the same time. This enables deposit-taking intermediaries to provide liquidity to households by keeping balances much smaller than those of their clients, while channeling the difference as loans to investors. Financial intermediaries therefore increase the efficiency of investment by directing liquid funds to less liquid projects and by preventing the liquidation of productive assets when individual investors experience negative shocks or unforeseen opportunities (Bencivenga and Smith).

Despite considerable debate about data, methodology and direction of causality, empirical evidence supports the view that financial development is an important determinant of economic growth. Using cross-country regressions, King and Levine (1993b) found that financial indicators have a strong positive correlation with economic growth, physical capital accumulation and efficiency. Moreover, countries with superior indicators of financial deepening at any point in time show higher GDP growth rates for the next 10 or 30 years. Linking growth indicators with lagged values of financial indicators, these authors found that financial development does not simply follow economic growth. Policies favoring broad, efficient provision of financial services have a positive impact on long-term economic growth.

2. Financial Reform

Appreciation of the contributions of finance to growth and economic development has triggered financial policy reforms in many countries. Interest in financial reform increased in the early 1980s as a consequence of reduction in international lending by commercial banks and the desire of governments to promote mobilization and more efficient use of domestic resources.

When governments tax and otherwise distort financial markets, the economy is financially repressed (McKinnon, 1989). Authorities in developing countries and economies in transition recognized that inefficiencies associated with interventions that distort financial markets had hindered growth. Restrictions on interest rates, reserve requirements on bank deposits, compulsory credit allocations, and directed credit had interacted with inflation to reduce the attractiveness of holding deposits. The resulting financial repression reduced the relative size of the domestic financial system and diminished its contribution to economic growth. The recognition of this clear example of welfare-decreasing intervention triggered the financial policy reforms of the 1980s and 1990s.

A key aspect of these reforms has been a shift toward market-oriented allocation of credit and abandonment of certain compulsory credit quotas and interest rate ceilings. State-owned financial entities have been privatized and restrictions on entry into financial markets have been eased in efforts to promote competition. Financial policy reform, however, has both benefits and costs. Some reforms have failed; some have been turbulent (Caprio, Atiyas, and Hanson). While there is much to support the views that finance matters in economic development and that policy reforms are needed for economic growth, an intense debate continues about how best to achieve financial liberalization (McKinnon, 1988) and about the role of the state in financial markets (Stiglitz; Gonzalez-Vega, 1994b).

3. Formal Finance, Poverty, and Human Development

For most of the developing world, structural adjustment has been dominated by macroeconomic stabilization efforts designed to bring national expenditure in line with national income and by attempts to increase national income through policy reforms, including financial liberalisation, that are expected to promote more efficient use of resources. There is a strong professional consensus that these adjustment programs have been successful in moving many nations toward internal and external macroeconomic balance (World Bank, 1994). Intense debate continues, however, about whether these objectives could have been achieved "while better protecting the poor and providing the basis to incorporate them in growth processes" (Grootaert and Kanbur).

Regardless of whether the poverty outcomes of the past decade stemmed from policies that militated against growth, or from the adjustment that inevitably followed as earlier strategies failed, concerns about how to achieve growth with equity in the long term became universal (Morley). An increasing body of evidence confirms that economic growth and poverty alleviation go hand in hand (UNDP, 1996; World Bank, 1990). Growth with equity requires policies and programs that foster participation of the poor in growth by creating employment opportunities, by increasing their use of income-generating assets, and by raising the productivity of their human and physical capital.

Financial markets, however, contribute to poverty alleviation "only when finance is allowed to do what finance is supposed to do" (Gonzalez-Vega, 1994a). That is, finance can reduce poverty when it transfers purchasing power from uses with low marginal returns to uses with high marginal returns, when it contributes to more efficient intertemporal decisions about saving, the accumulation of assets, and investment, when it facilitates the management of liquidity and the accumulation of stores of value, and when it offers better ways to deal with risk. In contrast, well-intentioned interventions that have attempted to use financial instruments for the pursuit of non-financial objectives, such as the subsidized, targeted credit programs of the past, have been weak in achieving those objectives and frequently led to unexpected but predictable negative outcomes (Adams, Graham and Von Pischke; Gonzalez-Vega, 1984, 1994b).

4. Formal Financial Services and the Poor Firm-Household

Financial services are important for poor firm-households. First, although millions of small and microenterprises in urban and rural areas in developing countries use resources carefully and show incredible ability to interpret trends and adjust to changes (Islam, Von Pischke and de Waard), their entrepreneurial capacity is frequently stunted or wasted when they cannot command sufficient resources to take advantage of their productive opportunities. When investment opportunities and wealth diverge, as often occurs among the poor, credit opens the way to attractive opportunities. Even those without such opportunities can benefit from financial intermediation by earning a competitive return on their deposits while making their resources available to others.

Second, financial services help smooth consumption over seasonal or unstable income flows. Third, access to credit prevents the unnecessary depletion of capital by poor producers who do not have sufficient reserves to face an unexpected negative shock (Rosenzweig and Wolpin). For most of the poor, deposits provide a safe and convenient instrument for the accumulation of such reserves assuming that interest rates remain positive in real terms and that precipitous devaluations do not occur. Thus, financial services can offer the poor more cost-effective management of risk, liquidity, and the accumulation of stores of value for precautionary and speculative purposes. These services are particularly important for poor households that live close to subsistence levels. Financial services are not a panacea, however, and credit cannot solve all of the problems of the poor (Gonzalez-Vega, 1994a).

In general, lack of access to a broad variety of financial transactions may constrain the ability of the poor to engage in profitable undertakings. Services obtained from numerous sources in informal markets successfully empower many poor households and small enterprises, creating value for their users (Adams and Fitchett; Bouman, 1989; Bouman and Hospes; Islam, Von Pischke and de Waard). Informal finance tends to be shallow in scope geographically, across products, and over the long term, and is not always sufficient to unlock the entrepreneurship of the poor (Gonzalez-Vega and Graham).

In turn, the information, incentive, and contract enforcement problems characterizing financial transactions may be particularly acute in attempts to make formal loans to the poor (Hoff and Stiglitz). As a result, potential low-income investors with profitable projects may not undertake them for lack of resources and lack of access to formal credit. Furthermore, emphasis on collateral characterizes traditional formal lending as banks attempt to solve information and contract enforcement problems. When this is the case, differences in wealth may have long-lasting implications for the ability to accumulate capital and thereby on growth and equity (Binswanger and Deininger).

5. Liberating Choice or Smothering Burden?

In spite of the wonderful opportunities they open, money and financial markets have a history of instability and abuse, with adverse effects on human development.

Irresponsible use of credit funds unproductive and unsustainable behavior. The largest single example of irresponsibility is possibly government borrowing for purposes that taxpayers are otherwise unwilling to finance. State sector overborrowing is common. In modern democracies candidates may bid for votes with promises that taxpayers are ultimately unwilling to pay for. In other regimes, taking care of loyal insiders and other faithful followers can lead to the same result, often accelerated by corruption.

Overborrowing is relatively easy because the state has a monopoly on the issue of currency and its securities generally carry high quality ratings because their credit risk is in many cases considered negligible. In addition, regulations may require banks, insurance companies and pension funds to hold government securities. Government overborrowing results in inflation, which taxes all holders of money and financial assets with fixed money values or fixed yields such as government bonds. The inflation tax is extracted through reduction of the purchasing power value of money and fixed-value or fixed-yield financial assets.

Inflation is often considered to be relatively benign for the poor because they hold so little money and virtually no government securities other than lottery tickets. However, inflation above some consistent single-digit percentage can increase their numbers; middle class people become impoverished as their savings decline in value. Rampant inflation usually diverts investment from productive purposes to speculative uses as financial calculations become meaningless and as the economy deteriorates. This makes conditions more desperate for the working poor.

The power of credit is also critical to the role that it plays in the fortunes of firms and individuals who are lenders and borrowers. An indication of the alternatives is suggested by Liberian vocabulary in which "debt" is a burden that is very difficult to repay or that is impossible to repay while "credit" connotes obligations that can be and have to be repaid. Some of the reasons for overindebtedness among informal borrowers were discussed above. These include untenable economic situations and emergencies that lead to indebtedness as a means of avoiding worse alternatives such as homelessness, starvation and death. In these cases debt is more likely to be a symptom than a cause of impoverishment, although debt once taken may be very difficult to repay, becoming a cause of continued misery.

In the formal sector the situation is more ironic. Formal financial institutions that are aggressively innovative make debt very enticing. For lenders such as banks and finance companies, this strategy usually requires a good legal system that makes debt collection feasible at low cost to the creditor. However, many legal systems retard the development of finance because property rights are defined implicitly or explicitly in such a way and legal institutions operate in such a way that many forms of property cannot be effectively used as collateral for debt, restricting the development of debt capacity.

Formal lenders using less formal techniques, such as microfinance institutions, do not rely on legal systems for collection. They use social intermediation techniques to create relatively intense relationships with borrowers, providing incentives to repay by

promising good payers continued access to credit and opportunities for larger loans, coupled with peer group support and possibly advice on business development (Bennett and Goldberg; Bennett, Goldberg and Hunte; Goldmark). These relationships help greatly to ensure prudent borrowing, although the offer of ever-increasing loan sizes may eventually pose a threat for some microlenders and their borrowers (Zander). However, there is a cost to constructing and maintaining microfinance systems. While the ratio of total costs (excluding profit taxes) to average loan portfolios for commercial banks in the US is about 10-15% (FDIC), the most efficient of these subsidized microlenders with very low funding costs have total cost to portfolio ratios that are twice as high. As a consequence, effective interest rates of 30% or more are required for most of these lenders to become sustainable (Holtmann and Mommartz; Schmidt and Zeitinger). (US banks do not have to charge rates of 15% because they have additional sources of income, whereas most microlenders do not.)

Remedies for temptations to become overindebted are many. Some societies and religions hold debt in low esteem, discouraging its use at all and particularly in excess: Shakespeare admonished, "neither a borrower nor a lender be." Systems of information in commercial circles are also likely to identify those who are not good payers, putting them at a competitive disadvantage (Timberg and Aiyer). Education of consumers through the media and through formal education in schools can encourage prudent use of debt.

Measures that provide soft landings encourage irresponsible indebtedness. An example is bankruptcy in the US, which became less onerous in the late 1970s with passage of softer laws offering more protection to bankrupt individuals. This increased the number of personal bankruptcies, which currently approach one million a year (American Institute of Economic Research). Softer laws prompted more lawyers to advise debtors to declare bankruptcy, encouraged irresponsible credit use and increased the costs of financial intermediation. Many soft landings that postpone responsible credit use are included, implicitly or by default, in conventional credit projects funded by governments and development assistance agencies. These projects target specific sorts of borrowers, often including the poor. They offer soft landings for defaulters, derived from project promoters' failure to design sustainable projects.

These projects tend to fail because of bad debt losses (Adams, Graham and Von Pischke; Agency for International Development; Kropp and Schmidt; Webster). Borrowers' repayment performance is poor and the lending program is decapitalized as more and more funds are tied up in arrears. Yet, there have been very few cases where defaulters have suffered meaningful penalties, including lack of access to further credit from other official sources. This creates a default culture which in the long run greatly increases the costs and decreases the probability of the sustainability of subsequent credit programs: target groups have learned that loans do not have to be repaid. Little doses of default lead to larger ones, depriving the poor of sustainable access to credit.

The strategic basis for not specifically and meaningfully including sustainability as a project priority usually arises from a booster rocket theory of intervention in financial markets, which views lending institutions as being expendable in the service of a greater

cause such as poverty alleviation, empowering women, or increasing agricultural production. This flawed strategy assumes that the poor can be helped by a single loan or for a short time that will then enable them to obtain resources, such as a cow or raw materials or supplies for a business, that will generate sufficient continuing income for them to escape from poverty or at least greatly to better their position. From this perspective, loan repayment is considerably less important than loan disbursement, the imperative of the development bureaucracy.

The desired result is rarely achieved (Von Pischke). Often the technology embedded in the loan purpose is too risky or complicated to be easily mastered: e.g., the cow dies. At times the working capital implications are underestimated or ignored: e.g., the cow does not have feed of sufficient quality to produced much milk or veterinary supplies are unaffordable. In some cases the technology is economically inappropriate: e.g., the new crop's yields have been overestimated by promoters. In other cases businesses such as small shops or artisanal manufacturing do not require much permanent capital but can thrive on continuing access to working capital finance; i.e., large, one-shot loans are difficult for these borrowers to manage and may not be that helpful. Their repayment may in effect require liquidation of the business where margins are small and subsistence is precarious. In almost all cases risk is not adequately address in project design, resulting in loan packages that do not respond to the reality the borrower must master to achieve sustainable results. Even where loan purposes are viable and loan packages are appropriate, low interest rates and the expectation of painless default attract opportunistic borrowers (Gonzalez-Vega, 1984; Schatz), often well-connected politically and only marginally, if at all, members of the target group, who willfully default.

Sustainability may not be regarded as important in other cases because the object of the credit program may be noneconomic. Holcolmbe and Xianmei (1996) report on a UN Population Fund project in China having the objective of "improv(ing) the status of women through increased economic participation, thus contributing to acceptance of a small family norm" (p. 16). In this role credit may be no more than a fig leaf. However use of credit without concern for its sustainability imposes a real cost on others who would seek to establish sustainable programs: large numbers of people, entire villages, will have learned that a credit contract with a donor-supported or official program does not have to be honored. Overcoming this tradition has costs for the lender following the program with poor repayment rates.

6. Sum Games!

The power of credit and the scourge of debt also determine lenders' reactions in the dynamics of credit access for the poor. As with possibilities facing borrowers in the formal and informal sectors, lenders differentiated by degree of formality face greatly different probable outcomes. Informal lenders face a wide range of outcomes and a number of possibilities regarding their use of credit to achieve their social and commercial objectives. This arises from the extent to which credit is "tied" or built upon

other relationships and the extent to which their loans are remunerative -- informal lending is also risky.

As noted above, informal lenders may use credit to build up obligations of reciprocity from their debtors. Traders and shopkeepers may use credit to create loyal customers. Landlords may use credit to obtain more land by lending to distressed landowners who cannot repay but for whom indebtedness is their best option in an imperfect and often cruel world. They may also use credit to increase the productivity of their tenants, enabling them to raise rents. Landlords and business people may likewise use credit as a means of bonding labor, although as also noted above these possibilities are few and concentrated in the Subcontinent. Receiving repayment in cash, in full and on time may not be critical to the achievement of informal lenders' objectives. Rather, they use credit to lock in remunerative relationships.

Where credit is not tied, as in informal pawnbroking, lenders face a narrower range of possibilities. RoSCA members also depend upon payment in full and on time, and their lending is unsecured and not directly tied to other, nonfinancial transactions with other members (although indirect or parallel relationships are often extremely important). Formal lenders, in common with RoSCA players, face a very restricted set of outcomes and asymmetrical gains and losses. While bankers tend, like their informal counterparts, to create remunerative relationships, these relationships are relatively straightforward. Fundamentally, the banker wagers that small, limited gains on a large number of good loans will outweigh a few large losses on bad loans. The banker's gain on good loans consists of interest income and prospects for continued business.

The large loss on bad loans consists of loan principal and of interest due. Not every bad loan is a total loss, but some loss occurs and the time and effort required to recover doubtful amounts can be costly. Loans may be collateralized, but security is often difficult and costly to perfect (International Labour Office). Too many seizures of collateral may create bad public relations for the lender or may even invite political interference, while too few simply gives potential defaulters a green light.

The upshot of a banker's efforts to balance these considerations is a generally conservative strategy. This risk averse strategy makes it difficult for the poor, roughly in proportion to their degree of poverty, to obtain credit from traditional commercial banks and even from some finance companies. However, bankers do not necessarily get rich by avoiding the poor. In developed countries commercial banks normally earn a return of around 1% per year on total assets. If a bank's capital (the difference between its assets and liabilities) approximates 8% of its total assets, an internationally accepted standard of capital adequacy, the return on capital is about 12% in a normal year before inflation (FDIC). This return is not out of line with those earned in other mature industries. Some of this profit is added to capital to facilitate growth; some is distributed to shareholders as dividends.

Venture capital is an interesting contrast to commercial banking that illustrates how asymmetrical gains and losses shape strategies. Venture capitalists work with money they

can afford to lose, unlike bankers who work with depositors' money that if lost subject the bankers to extremely serious consequences. Venture capitalists are risk seekers who look for difficult situations that will enable them to enter, to try to improve performance, and to exit. Their deals typically include attempts to turn around troubled companies which with more funding and possibly different management might be able to expand rapidly and reap large profits in a risky market. They also seek innovative possibilities, new and untried concepts, products and services that may have great market potential.

The venture capitalist knows that the majority of his or her investments will fail. A few will succeed and some of these will succeed magnificently. Out of ten deals, for example, seven may lead to losses, two may break even or show small returns, and one will be incredibly remunerative, possibly returning as much as 10 or even 100 times the original investment within a few years. The venture capitalist typically sells out in all cases except where bankruptcy of the venture precludes sale. Sale occurs when the loss appears irrecoverable or when the rate of gain appears unsustainable once a healthy level of operations has been achieved. Sale of the highly successful investment will cover the losses and provide funds for another round of deals.

7. Venture Capital for Credit Projects for the Poor?

Could the calculus of the venture capitalist be enlisted to help the poor gain access to formal financial services? This clearly could be done, but it is not clear who could do it successfully and on a wide scale. Possibly in effect it has already been attempted many times by development assistance agencies. However, between the venture capital approach and donor priorities there are important differences, the largest of which is exit strategy. The venture capitalist carefully reviews market conditions and risk, and uses analytical tools to determine when to declare a loss, and when to liquidate his or her position in the venture. Every effort is made to avoid any sentimentality or partiality by continuously testing results against strategy through incessant calculations regarding performance and prospects.

Donors are more likely to have institutionally more complex decision procedures and less sharply tuned information systems. They also hate risk. The shortest chapter of a World Bank appraisal report, for example, is the one on risk. Sometimes the presentation on risk is amalgamated with discussion of benefits, both qualitative and quantitative, softening the message. Rarely are the risks of credit projects identified as borrowers' failure to repay or as factors affecting the sustainability of the financial institutions concerned. Venture capitalists, by contrast, revel in risk and discuss it to death because it is the source of their profits as well as of their losses. Accordingly, and because of the political context in which donors work, almost always with heavy government involvement, they are less likely to be able to develop strong positions, take decisive action and know when to quit. Knowing when to quit is important when failed deals greatly outnumber remunerative ones.

Failure by the venture capitalist has few externalities. Misfortune is confined largely to those involved in the venture. Credit projects, in contrast, have complex externalities affecting the value and sanctity of contracts, incentives for rent-seeking by borrowers and politicians, expectations regarding the scope for predation in future interventions in financial markets, and domestic and possibly foreign public debt arising from the sources of funding of the failed project. Thus, net social losses may well occur from credit project failure.

The odds that a credit project will yield high social net value seem much more daunting than those facing the venture capitalist. Grameen Bank in Bangladesh may be the greatest success, with Bank Rakyat Indonesia's village units and BancoSol in Bolivia being other examples among a relatively limited set. It appears that most of the billions of development dollars devoted to small scale credit has been lost to unsustainable activities without uplifting great masses of poor people. Specialists in disciplines concerned directly with human development and capability poverty could easily argue that these funds could have been better employed directly in their fields.

C. Can Sustainable Formal Financial Systems Reduce Persistent Poverty?

The *Human Development Report 1996* (UNDP, 1996) defines poverty not only as simply the lack of income, offering "capability poverty" as a more useful and valid measure. It specified three basic capabilities: the capability to be well nourished and healthy, the capability for healthy human reproduction, and the capability to be educated and knowledgeable (p.27). In many countries the number of people who are capability poor far exceeds the number who are income poor according to measures used in *HDR 1996*.

1. Attacking Income Poverty

The role of financial systems in income poverty alleviation is probably more direct in the short run than in capability poverty alleviation. This is because finance is more clearly related to activities that are closely tied to income generation. Credit used for productive purposes has to have a payoff relatively quickly, i.e., usually within a few years at most and customarily within the period for which the loan is outstanding. The components of capability poverty as defined in HDR 1996 often require longer lead times and greater infrastructure requirements, especially with respect to education and health.

Credit for agricultural producers may in some cases appear to address both types of poverty simultaneously. Credit for poor producers may enable them to produce more, improving their own health and nutrition through on-farm consumption as well as through increased purchasing power. Greater supplies of agricultural goods reduce their

prices, increasing the relative purchasing power of the urban or landless rural poor. However, circularity or a spiral is already at work: reduced prices for their increased output may keep poor producers right where they are economically. This reflects a perverse element in agricultural development, which has only two guaranteed results: cheaper food and fewer farmers. Thus, promoting widespread access to credit for small producers as a means of increasing production of food crops consumed by the poor or higher-value crops consumed by the rich would involve trade-offs and may not always be sound economically. It is almost certain to produce poor financial results for lenders because formal agricultural finance technology is problem-plagued in most countries with high incidences of poverty. Lack of sustainability of these systems in such countries is the cause of sectoral donor fatigue reflected in diminished foreign assistance for rural finance.

To be successful, farm credit appears to require a link with savings mobilization and often with tied contracts, preferably with traders in competitive rural markets. Worldwide, measures must also be in place to deal with risk, such as a bad harvest. Rich rewards and many happy borrowers will greet lenders who can offer such services. Donors could have made a tremendous contribution here in the heyday of rural credit projects, but chose instead to ignore risk and its implications, or to rely on superficial and unsustainable responses such as crop insurance provided by government institutions.

Income poverty has proved resilient to official credit programs in most poor countries. Historically it appears susceptible to general but not complete eradication through adoption of liberal institutions broadly defined, as found in prosperous Western countries and Japan (Powelson). In a contemporary context it can be assaulted with some success in countries with less liberal institutions, relatively open trade policies, reasonably high literacy and stable governance facilitated by no or very low levels of internal ethnic conflict, as in parts of East Asia that until recently were poor.

2. Attacking Capability Poverty

The distance is great between the income-generating objectives of most commercially productive credit and capability poverty alleviation. This distance is occupied by many institutions, which may be defined as a society's great institutions, that underlie poverty of either type and also wealth. These great institutions define the role of the individual and of groups (including the State), determine what constitutes property and how it may be used and exchanged and by whom, govern how income and wealth are generated and deployed, define what constitutes information and how it is used, interpret the meaning of change and specify how conflicts are managed.

These institutions have much to do with the role of finance because finance incorporates risk, which is weighed subjectively, and based on confidence, which requires consensus. The costs of achieving any given level of consensus vary greatly from society to society, from issue to issue, and from era to era (Fukuyama; Powelson). Great institutions are also important to the remunerative use of credit because they shape

attitudes toward productive activity in the largest sense and rent-seeking or nonproductive activity in the economic sense. For formal credit systems to work, a surplus has to be produced somewhere in the credit cycle and a portion of it specified in advance has to be returned to the lender. The greater the surplus, the greater the potential role of finance in its use.

Society's great institutions have great significance for the role of finance in addressing capability poverty, especially health and education. As noted above, creation of these capabilities may require more time and investment in social and economic infrastructure than required for action to reduce income poverty. This is not to say that income poverty and capability poverty are unrelated: *HDR 1996* shows that they are broadly correlated.

Rather, the question is one of the mechanisms by which they are produced. If the supposition of longer-term relevance is correct, longer term financial instruments are likely to be particularly useful in any role that financial markets may have in reducing capability poverty. But even if the supposition is incorrect, long-term finance still can help reduce capability poverty.

"Long-term" in finance commonly means a period of five years or more. A benchmark used in a developed market such as the US is 30 years, the maximum maturity of standard US government securities. The term market for securities in the US other than those issued by the US government is devoted primarily to infrastructure, to projects that take a long time to pay off. Examples include electric power plants, bridges and highways, but there is also a profusion of bonds covering the construction of hospitals, libraries and schools, which are part of society's corporate institutions contributing to capability.

Government securities may also provide funding for student loan programs directed at higher education. However, repayment rates on these in many countries have not been encouraging, apparently due to the systemic problems with official credit to targeted individuals or groups. Where these failures occur, official credit becomes yet another burden on taxpayers who have to put up the difference between amounts received from borrowers and amounts due holders of the bonds supporting such loans.

The long-term market is indeed important for dealing with all types of poverty. Primary examples include life insurance and pensions. Financial intermediaries providing these type of contracts accumulate large reserves because premium income tends to be received for long periods before payouts are made. These accumulated funds can be invested in projects that take a long time to pay off. The role of Singapore's official pension fund in housing development and ownership is legendary as a developing country example. In the developed countries insurance companies and pension funds own lots of property and have large investments in bonds, some of which are in projects such as hospitals and others mentioned above that are in a position to address capability poverty directly. This industry is regulated and stable in most rich countries.

Interventions by UNCTAD's Special Program on Insurance and development assistance agencies have attempted to provide stronger insurance markets in many developing countries, but the results have often been unsatisfactory (Hazell, Pomareda and Valdes; Von Pischke). Crop insurers, for example, have generally failed to build up adequate reserves. Government policy in many developing countries has established national reinsurance monopolies and restricted insurance sale and underwriting to locally-chartered or -owned insurers in an effort to reduce premium flows abroad. These measures create a captive market for the securities of the governments making these policies. In many cases it would be difficult to make the case that funds received by governments from sale of securities have been used responsibly or helped to reduce poverty. Securities denominated in the national currency have frequently lost value rapidly as the national currency has evaporated with inflation. Likewise, requirements that insurance contracts specify coverage in local currency only have often destroyed much of their value as these currencies depreciate rapidly relative to those of richer countries. While many of the poor are not in a position to buy formal sector insurance, they could be benefited from use of the large pools of term funds that successful insurance markets accumulate.

In many cases long-term markets are smaller than they might otherwise be because the State has directly assumed some operations that could be handled in these markets, and has done so in a manner that appears currently to be less sustainable than the market could provide (World Bank, 1994b). The corner of formal finance in which the largest number of broken or unremunerative contracts reside is run by governments: social security in the form of old age pensions. Most national governments operating these schemes make participation mandatory for many workers, not just those in government jobs. Most of these schemes are unfunded or only partially funded, which means that today's workers' involuntary contributions pay today's pensioners.

Who will pay tomorrow's pensioners? Presumably, tomorrow's workers. But many countries' schemes are on a demographically-doomed track because the number of pensioners and their claims outweigh the expansion in the workforce and workers' contributions (Chand and Jaeger).

Because contributions are politically determined, they enter territory where in the long run the government promises more benefits than taxpayers would otherwise voluntarily want to pay for. If taxes cannot be raised sufficiently, benefits have to be reduced, inflation can be used to erode long term values, or both. Consequently, it is highly unlikely in many countries that today's workers' contributions will be returned to them at full value plus interest in their old age. Amounts that are likely to be provided may not be greatly different from poverty levels likely to be defined in the future. The working poor involved in such schemes may still benefit relative to those who are not included, but the only advantage arises from the forced savings element. The stewardship of their precious pension funds has often been grossly negligent.

Responses such as those pioneered in Chile may be more effective, even though coercive. All workers must contribute a specified share of their salaries to a pension fund

of their choice on a list approved by the State. This list includes the government program and a number of private pension funds. Their contributions are funded and vested, meaning that each worker's contribution and the returns obtained by the pension fund manager will determine that worker's pension. The pension fund managers are permitted to invest a portion of their assets abroad to diversify currency risk, and may also use certain derivatives to maintain value for their clients.

3. The Function of Tied Nonfinancial Services

Projects that reach out to the poor frequently provide a package that includes credit and nonfinancial services such as agricultural extension, business advice, general education or literacy training, recommendations on health practices and nutrition, and efforts to obtain access to government services in general (Bennett and Goldberg; Goldmark; Otero and Rhyne). The package is intended to address major areas in which the poor are deficient. In some cases this broad response by development agencies occurs because the provider is specialized in delivering a nonfinancial service. Many NGOs of this type have added microcredit for women to their programs in recent years because of its popularity and the proliferation of donor funds for microfinance.

The results of these programs are mixed, and evaluation is difficult because of the complexity of the package. In some cases success is reported on all fronts and that elements of the package are mutually reinforcing. In others it is reported that the participants are willing to endure the package primarily to obtain credit, indicating that they treat the nonfinancial activities as a transaction cost rather than as a benefit. (See the credit impact bibliography at the conclusion of this paper.)

Hence, more consideration of the conditions contributing to each outcome is required. General conclusions regarding efficacy are difficult to draw, with the following exceptions. First, some of the nonfinancial services may be unsustainable in the absence of a project. This may be satisfactory if the service has succeeded in permanently changing behavior of the beneficiaries, such as a continued interest in literacy, the use of pit latrines, and new perspectives on the organization of productive activity.

Second, the mixing of financial and nonfinancial services makes sustainability and independence from subsidy more difficult to evaluate. Can the financial services survive if the nonfinancial services, which require subsidy, are discontinued? What proportion of the provider's costs can be allocated to financial services so that a rational interest rate can be determined? What is the interaction and synergy of different elements of the package? From this perspective, a package including nonfinancial services may threaten the sustainability of the financial components.

Third, Bank Rakyat Indonesia, through its village units the most successful provider of micro and rural finance, offering loans as small as US$ 11 equivalent, is adamant about separating financial and nonfinancial services, leaving the latter to social service providers far removed from the financial sector (Robinson, 1996). BRI argues that

combining them is unnecessary and sends mixed signals to clients and other interested parties by blending commercial activities and social service; separation stimulates opportunities for specialization and independent outreach, creating a better platform for expansion of both types of services in response to the situations of their users. In view of the unsustainable nature of many mixed programs, replication of BRI's strategy should be given serious consideration.

D. Cool Credit as a Response to Poverty

Using the traditional view of poverty as denoted primarily by low income and small savings, it is not surprising that credit would be advocated as a palliative or even a cure. This response is based on the immediate impact of credit: put some money in a poor person's hand and quite probably it will be quickly spent to alleviate his or her condition, at least temporarily. At some later time the recipient may be in a position to repay. Official or charitable credit from distant sources that is provided in these situations is known as "cool" or "cold." This is distinguished from "warm" credit that is provided from sources close to the receiver, such as other members of a credit union or RoSCA. Warm money has to be treated with respect, whereas cold money permits some latitude. This distinction was first noted in credit unions that scrupulously husbanded loans funded by members' deposits while at the same time providing little discipline or oversight of loans funded by a development assistance program.

Credit appears to offer even more appeal when efforts to help go beyond short-term relief and immediate assistance in times of great stress. The attractiveness of credit to those who would help is in this case based on the longer term power of credit encapsulated in a vision of a better future for the borrower built on the possibility of returns in excess of the cost of using someone else's money.

The next question is who is the author or the owner of the vision, the borrower or the lender? If borrowers see no particular way out of their poverty, they may simply wish to have the money and be left alone with no obligation to repay, unless continuing the relationship is likely to make it possible to obtain more money, at least some which does not have to be repaid. This calculation distinguishes between the returns to using someone else's money that has to be repaid and the return when the funds do not have to be returned.

This possibility of dissent or dissembling, that a borrower may not share an altruistic lender's cherished values or vision of a better world, paradoxically makes credit even more attractive to such a lender. It may be possible to impose the vision on those receiving credit, or at least to use credit to guide borrowers to better things in and of life. This potential is precisely why credit is often selected rather than a grant.

This phenomenon may be called "moneylender envy." It is based on a vision of control, but a virtuous one compared to the dark power of credit suggested by the most repugnant renditions of the malicious moneylender stereotype. Once disbursed, the party providing the grant has little power over the recipient unless further and rather predictable grants are contemplated. With credit, the lender retains some power or at least the appearance of power because there is a reciprocal obligation to repay, which is sometimes represented by security provided against the loan.

Credit may also be defended as a superior alternative to grants because it is more economical for the issuer. Money collected from borrowers helps perpetuate the apparatus and reduces costs. However, grants may well be less expensive and more welfare-enhancing in the long run compared to credit projects that fail roundly, that diminish existing institutional capacity in the process, and that create rent-seeking behavior vis-ˆ-vis domestic institutions rather than the foreign providers that are in a much better position to offer grants and to resist and diffuse such behavior.

The interplay of these forces in the development of modern retail financial arrangements for specific groups of people can be traced by examining the basis for altruistic lending, briefly noting some large official efforts to use credit to assist the poor.

1. Altruistic Lending as a Policy Response

Policy-based lending favoring the poor has a long history. Early modern historical examples include lending by the British in India to poor people affected by natural disasters and poor harvests (Darling). These loans were often difficult to recover because they combined potentially conflicting considerations, i.e., relief and credit. Loan schemes to enable poor people to obtain land and improved agricultural technology were found in American, British, Dutch, French, German and Japanese colonies. (See Kratoska for prototypical British efforts in Malaya. Recounted in Von Pischke, 1991.)

From around the 1830s various private efforts to provide nonconcessionary credit to poor people developed in Western Europe and North America, taking the form of savings banks, urban credit and thrift societies and rural credit and savings cooperatives (Raiffeisen; Von Pischke). Some of these eventually developed into large, modern retail financial institutions, joining giants such as Bank of America and the Norinchunken Bank in Japan that were built on deposits mobilized largely from people of modest means.

The Great Depression led many governments to establish specialized farm credit institutions to assist poor or struggling rural people. Similar official institutions designed to promote small businesses, often in urban areas, have likewise been established.

The institutional structures created in industrialized countries provided a basis for replication abroad in colonial times and especially in the 1940s and beyond with the introduction of permanent official bilateral and multilateral agencies devoted to economic and social development in poor countries. Early aid agency interests were land reform

and small farm development. Loans to farmers for these purposes were generally made on concessionary terms. This type of lending was also often embedded in area development projects and in promotion of new agricultural technology, irrigation and crops accorded official priority.

Interest in credit expanded rapidly, in part because of widely-admired, massive initiatives undertaken in India following the All-India Rural Credit Survey conducted shortly after independence in 1947 (Thorner and Thorner; Reserve Bank of India 1956, 1957), which marked the start of an era. These activities centered on directed credit, which targets loans from official sources to specific classes of borrowers, regions or uses. Perceptions of market imperfection often underlie directed credit, which is often expected to make up for some gap in financial markets that excludes the people and purposes that will benefit from directed credit. Directed credit has four general characteristics: use of official funds, lending quotas, low interest rates and, more recently, loan guarantees. Assumptions reflected in project design are that beneficiaries are too poor to save and cannot afford to pay interest rates that cover the costs of providing them with credit, that informal lending exploits target borrowers, that borrowers require technical assistance to adopt new technologies, and that the State or its agents can produce the change it desires by providing such credit.

By 1970 hundreds of directed credit programs were supported by donors. Loan recovery problems prompted reviews, the largest of which was the USAID Spring Review of Small Farmer Credit in 1972 (Agency for International Development). Results suggested that these programs reached fewer targeted beneficiaries than anticipated, that costs of technical assistance often exceeded benefits, and that these projects would not be sustainable without large, perpetual subsidies. These realizations eventually led to a focus on market rates of interest, deposit mobilisation, reductions in or elimination of technical assistance tied to credit, and improved services for beneficiaries. Collapses of large directed small farm credit programs in Indonesia, the Philippines and Sri Lanka, massive loan recovery problems in India and Bangladesh, and research that demonstrated that credit subsidies tend to be regressively distributed, increasingly prompted doubts about the efficacy of directed credit in reducing poverty.

Although donor activity diminished with realizations of failure, many of the institutions donors had assisted and that had considerable budget and political support could not cut their losses so quickly and sputtered on. The end of the era occurred in 1995 and 1996 with reforms in India, about 45 years after the modern era of large scale applications of credit to help poor farmers began following the All-India Rural Credit Survey. Losses in rural credit continued to mount, approaching US$ 200 million or more per year. The reform-minded government moved to make the changes required to have a responsive and vibrant rural credit system, following the formulas of financial liberalization: freeing interest rates, dismantling credit quotas, etc.

However, the legacy of 45 years greatly reduces the immediate scope for durable reform. The Indian effort, the largest and most dedicated anywhere to uplifting poor cultivators, evolved in a classic way. It began with cooperative credit to farmers, using a

system that had been in place for most of the century (Robert). Repayment and political problems confounded objectives. Then commercial banks were brought under "social control" and soon after were nationalized. The banks were enlisted with quotas and a mandate to serve agriculture. This led to the decline in the quality of their agricultural portfolios to levels approximating those of the cooperative financial system. Then regional rural banks were established and their performance quickly found the level of those of the cooperatives and the banks.

In each of these opportunistic or desperate steps of "institution rolling" and political venturism donors were quite happy to lend a hand, although it was reasonably clear by the early 1980s that the problem was political, inherent and systematic. Hundreds, if not thousands, of parliamentary candidates' platforms had included nonpayment or forgiveness of rural debt owed to the official system. One Minister of Finance had organized a series of huge "loan melas" or rallies at which tens of thousands of rural people -- often in areas loyal to the opposition party -- were issued "loans" in a single day, much to the dismay even of many nationalized bankers already accustomed to not getting much of their money back on agricultural loans. At this point there are no technical solutions and it becomes impossible for "finance to do what finance is supposed to do."

"The financial systems approach," a body of theory and tools used in project design and policy advice evolved among centers of concern in donor agencies, consulting firms and universities in the United States and Germany in response to research and experiences with these and other problems of financial development. It emphasizes sound lending principles, risk management and pricing to cover costs, and transparency. It cites the importance of financial intermediation for efficient development and for the expansion of financial services to include large numbers of people. Experience, research and the new paradigm reduced donors' interest in small farm credit. Many developing country lenders providing directed credit collapsed with the withdrawal of donors and with new official focus on financial sector reform and adjustment.

2. The Rise of Microfinance

"Microfinance" as it is known today began in the 1970s (Rhyne and Rotblatt). In Bangladesh the Grameen Bank made its first loan in 1976. Badan Kredit Kecamatan developed simple village-based lending units in rural Indonesia. In the early 1980s ACCION International found that solidarity group loans outperformed their previous credit programs (Berenbach and Guzman).

Microentrepreneurs own tiny businesses operating informally, in rural as well as in urban areas. Many are women. Although poor, these clients provide a basis for sustainable lending by microfinance institutions that provide appropriate incentives, that manage efficiently, and that control their costs. Sustainable programs' total costs may reach 30% of their average outstanding loan portfolio. Their effective lending rates of interest are therefore often 30% or more.

Loans are small, short and often unsecured. Loan sizes have to be based on repayment capacity. Motivation to repay is provided by continued access to credit, and larger loans for dependable borrowers. Microenterprise loans appear less risky than small agricultural loans, and are easier to appraise than those to small firms in the modern formal sector.

Microfinance organizations use information-intensive and character-based lending technologies to address information and enforcement problems. For example, group lending using peer review of borrowers and loan use, and different degrees of joint responsibility for repayment, are frequently used in microfinance. Borrower training is provided by some programs but not by others, and does not appear to be related to repayment performance. These approaches are characterized by a market perspective that identifies the preferences of poor clients and that designs services to meet them (Rhyne and Otero). These approaches also recognize that for the poor the supply of deposit facilities is at least as important as the supply of credit (Patten and Rosengard).

By 1990 several leading programs had produced dramatic results. The village units of Bank Rakyat Indonesia (BRI), offering loans as small as US$ 11, had reached more than one million borrowers and many more savers, were highly profitable, and entirely funded by the voluntary rural savings they mobilized. Grameen Bank also had more than one million borrowers. Several microlenders in Latin America had more than 10,000 clients and appeared to recover their full accounting costs, although some of these costs were subsidized. ACCION International's Latin American network served more than 200,000 clients by 1994 (Rhyne and Rotblatt).

A few microfinance organizations have made important gains in outreach and sustainability (Christen, Rhyne and Vogel; Yaron, 1994). Their interest rate policies allow them to cover all of their costs. They have designed and perfected cost-effective methodologies for the delivery of financial services to the target clientele, and have acquired significant competence in financial management. Although their interest rates are high compared to those charged by commercial banks, they are lower than those charged by informal moneylenders. Many low income household-firms in developing countries can earn high marginal rates of return using additional resources and are able and willing to pay high rates provided that their transaction costs are not too high and that faithful repayment will be rewarded by sustained service. Lower rates of interest made possible by financial innovations in lending to the poor will generate additional welfare gains for these household firms. In turn, emphasis on financial viability and institutional permanency is critical for the success of these microfinance organizations (Chaves and Gonzalez-Vega 1993).

Financial innovations and new organizational designs that increase the access of the poor to financial services, both loans and deposit facilities, contribute to growth with equity. The microfinance organizations (banks, credit unions, private development organizations) that provide these services successfully have approached their task from a broad perspective on the role and importance of financial intermediation. They supply financial services that are attractive to the poor and responsive to them, operate on market terms and have sought profits that would allow them to expand their outreach. They have

done all of this without apologies, because they recognize that permanent and efficient finance, per se, matters for the poor. However, none of these microfinance programs targeted at the poor reaches much beyond "the middle poor" (Hashemi; Hulme and Mosley). Clients seldom include the bottom one-quarter of the poor as classified by income criteria. Below this level other problems appear to make it impossible for "finance to do what finance is supposed to do."

Regulatory issues have arisen in a number of countries where nonbank microlenders accept deposits (Chaves and Gonzalez-Vega 1996; Vogel). Some regulators are willing to supervise nonbank deposit-takers, while others are more comfortable supporting the development of apex or wholesale institutions that raise money by selling paper to savers and investors. These funds are then loaned to retail microlenders. This model has been especially well developed in Bolivia, where special legislation was enacted in 1996 to cover these wholesale funding operations (Trigo).

With this growth came important institutional changes. One was that microlenders that did not aggressively mobilize savings from the public began to borrow on market terms from commercial sources such as banks. This reflected their growth beyond the limits of donor resources and their creditworthiness, which was often assisted initially by guarantees based on donor resources. Another was the formation of BancoSol in Bolivia. This commercial bank's genesis was PRODEM, a microfinance program affiliated with ACCION. BancoSol has more than 60,000 borrowers and its return on assets compares well with those of other banks in Bolivia. The rise of microfinance has also prompted a few commercial banks, in addition to BRI as the pioneer, to dabble in microfinance. There appears to be scope for expansion in this direction where appropriate institutional arrangements can be devised within banks.

While microfinance is very popular among donors and the NGOs they finance, it is too early to conclude that these efforts are generally sustainable (Schmidt and Zeitinger). Excluding BRI, their present size is largely a function of donor and government support, which has generally failed in the past to create durable financial institutions based on a social or policy mission in developing countries. Ownership and governance issues remain among many nonbank providers (Krahnen and Schmidt). Several once regarded as generally successful have suffered major setbacks because of insufficient internal controls and oversight by their owners. In addition, a number of providers do not yet have seasoned loan portfolios for which risk parameters can be relatively clearly specified.

Widely-cited success stories represent a tiny minority of microfinance institutions although they account for a significant share of the global microfinance market. The majority of microfinance institutions are unlikely to become sustainable, although viability in finance requires time, and definitive judgment is not yet possible (Adams and Von Pischke). A major challenge for the industry is to develop better management and management information systems, with BRI and BancoSol as examples of good practice.

Financial data are often not provided in much detail and are in some cases suspect. For microcredit institutions generally financial reporting is seldom transparent, which is

curious because so much of their funding is public money provided through official agencies. This makes it impossible to undertake detailed analysis of the financial performance and condition of the microfinance industry, a cautionary signal to those curious about the prospects for sustainability. Declining repayment performance over time has characterized previous donor-funded credit organizations, and it would be helpful to have early warnings of any tendencies of this sort in microfinance so that causes could be identified and remedial actions taken.

3. Donor Strategies and Activities

Donor agencies have offered credit to the poor as a response to poverty since the 1950s. As noted above, this credit has been targeted at different types of poor people, such as small farmers and microentrepreneurs, and within different frameworks, such as community development, adoption of improved agricultural technology and programs aimed at women. These efforts have generally and consistently failed to create sustainable lending institutions and financial systems serving the targeted poor.

However, there are some promising signs of exceptional behavior based on sound banking practices that might open a new book. These include the village units of Bank Rakyat Indonesia, which are profitable and not dependent on subsidy, and BancoSol in Bolivia. The Bank for Agriculture and Agricultural Cooperatives in Thailand is profitable, not subsidy dependent, appears to be well-managed with viable strategies and reaches more than half of the farming households in Thailand. Grameen Bank in Bangladesh also exhibits many fine banking instincts, while operating with subsidy in an extremely risky environment and with a capital base (in relation to total assets) far below the international standard for commercial banks (Grameen Bank)..

Why have donor credit projects targeting the small end of the market generally failed the sustainability test, and why have they done so consistently? The brief answer is that there has never been a firm technical commitment to sustainability of finance at this level. (Donor organizations with a technical commitment to sustainability in finance, such as the International Finance Corporation, have not been involved at the small end of the market. IFC's recent interest in microfinance is too new to evaluate against the sustainability test.)

Sustainability of financial institutions and systems requires income that covers expenses. The difference is often known as profit, which many in the donor community place in a lexicon different from the more favored one containing terms like development, equity, poverty, exploitation, market failure and public policy. Risk is another difficult word in development. With the exception of "at risk" to denote vulnerable populations, it is rarely used and therefore is not placed in any relevant lexicon.

Technical commitment would be demonstrated by an overwhelming fascination with risk and by dedicated efforts to measure it. Over time, this would enable development

agencies to construct a tremendous information base about the things likely to go wrong in credit contracts, financial markets, and on the farms and in the nonfarm enterprises operated by borrowers at the small end. This information would offer a tremendous platform for risk management. Efforts to identify, quantify and manage risk would also have to include the impact of credit projects on the capital of the retail lenders making these loans and bearing the credit risks of doing so. This would permit donors to refine their projects so that these lenders would no longer consistently lose money using donor funds. It would also offer a platform for framing strategies that would enable lenders at the small end to accumulate capital, by retaining profits, for example, that would permit them to expand their outreach to more and more poor people on a sustainable basis.

This risk-based strategy would be superior to reliance on perceptions of market failure, an economic concept that now drives technical approaches to the provision of financial services to target groups but which has failed to create a viable credit mechanism for the poor. Market failure is said to occur when information problems lead lenders to reject loan applications that they wrongly perceive as being too risky, and when the incentives motivating the lender are not consistent with those required to create benefits for the economy. Based on this definition, market failures clearly exist.

In fact they are virtually universal. The theory of market failure holds that such failure presents opportunities for intervention to redress the failure. This is done in two ways. The first is by creating better information or by designing ways of getting lenders to behave in ways that are consistent with the truth rather than with the lender's partial perception of it based on imperfect information. The second is by changing the incentive structure to produce the desired benefits that are thought to be obviated by the difference between the lender's private gain and the good of society that could result from more socially beneficial behavior by the lender. While providing an interventionist carte blanche, it offers no content: e.g., what information is important, what subsidy or interest rate is required, what proportions of equity and debt financing best harmonize borrower and lender interests, how can collection rates be predicted, how big should loans be, etc.?

Market failure is therefore a concept that can be applied only subjectively, because information is never perfect and because not everyone agrees on what is socially beneficial. As such, allegation of market failure offers wide scope for all sorts of activity by any official agency with money and power. It is generally used to impose the values of a party outside the market on those operating in the market, and in very specific ways.

Those using market failure to project their agendas also face information problems: in credit projects they lack the information on risks and on the cultural basis of credit that would enable them to create structures that are sustainable in the long run and independent of subsidy. This is amply demonstrated by the widespread, tragic history of credit activities funded by development finance. The evidence rests on the general failure to establish sustainable financial institutions at the small end and by the large numbers of poor people who remain without access to credit from formal institutions. New, more humble approaches, incorporating more interest in information, especially financial data and market research results, are required if donors are to improve their odds and be

effective in contributing systematically to sustainability. The way so brilliantly illuminated by market failure as a tool of public policy is a blind alley in development finance.

E. Microcredit Impact Analysis: Does Credit Alleviate Poverty?

Impact evaluation is considered important when credit is subsidized and targeted. The sources of subsidy want to know whether their agenda is being accomplished. As a consequence, many credit impact studies have been commissioned. (See the credit impact bibliography at the conclusion of this paper for a representative list.) These focus almost entirely on the beneficiaries of the subsidy, who are the ultimate borrowers receiving loans under the program or project or from the institution retailing the subsidized credit.

Subsidies are delivered directly and indirectly. Direct subsidies flow to the ultimate borrowers in two ways. The first is interest rates that fail to cover the costs of sustainable delivery of the targeted credit. Direct subsidies also take the form of bad debt losses incurred by the lender. These transfers are often larger than those conveyed through unsustainable interest rates. Indirect subsidies are those provided to the lender to cover costs that are regarded as essential to the credit program. These may include seed capital to fund the lenders or program's start-up costs. They often include technical assistance to the lender or to the borrowers, and provision of nonfinancial services that are associated with the credit operation. These services consist of business training, instruction in health and nutrition, and other efforts to influence borrowers' lives and values through empowerment.

Impact studies tend to indicate highly positive impacts on the target population of borrowers, moving them away from poverty. Indicators of improvements in lifestyles attributed to microcredit include evidence of various dimensions of empowerment. Examples are higher incomes, improved housing, better health, adoption of family planning (Khandker and Latif), more schooling for children, and less fatalistic or passive approaches to life and its opportunities and challenges. These positive features appear to be especially prominent when the borrowers are women. Their position, status and bargaining power in the household are frequently enhanced.

Unfortunately, the logical and scientific bases of virtually all credit impact studies are at best limited or questionable, at worst fatally flawed. The fundamental problem is that variables other than receipt and use of loans cannot be fully controlled for research purposes. This destroys the basis for inferring causality, the proposition that loans cause observable differences between those who borrow and those who do not.

The problematic aspects of these studies are complex. First is the problem of separating credit from other variables in credit projects that offer nonfinancial services

such as training and consciousness raising. These include most microcredit projects, that are in fact packages of services which are almost impossible to unbundle for analytical purposes. What is the role of credit relative to the other benefits? Would performance have been any different if a grant had been received rather than a loan? In this respect it comes as no surprise that credit has an impact -- it always does because money is fungible and provides purchasing power. It offers liquidity and opportunities to smooth consumption and investment expenditures. A generally positive impact is also demonstrated when many borrowers continue to borrow anew and repay.

A related problem is treatment of bad debt losses. Impact studies rarely differentiate the behavior of borrowers who repay in full and on time from those who do not. These concerns are of great importance for project design and evaluation because many official programs are not expected to be sustainable: i.e., a large grant element is included in these "credit" operations in the form of exceedingly low interest rates and high bad debt losses.

Study of those who do not repay would no doubt reveal cases in which the purpose for which the loan was given proved not to be viable, as well as losses due to the incapacitation of the borrower, theft, etc. These could help to reveal instances where borrowers should never have been offered loans in the first place and where activities promoted by lenders were not well selected. The consequences for lenders can be grave, in the form of bad debt losses and higher operating costs, and also for borrowers. Oral reports by officials of Grameen Bank and FINCA have included cases of suicides by women who could not repay.

Measurement problems also bedevil credit impact studies. These studies attempt to demonstrate "additionality," the changes directly attributable to credit use. Additionality is obscured by two factors: fungibility and selection. Fungibility is reflected in the complexity of borrowers' financial flows. Most poor households have multiple sources of income from productive activities; liquidity from savings and assets that can be sold, and often remittances; and clearly there are multiple uses of their meager funds. This makes it difficult to equate any changes at the margin in funding with changes at the margin in investment or consumption, even when credit is used for the purpose for which it is intended in the loan contract. Similar activities might have been undertaken in any event, possibly on a different scale or over a different time frame. This problem recedes as loans are large relative to incomes and for easily identifiable activities. But larger loan sizes may also increase bad debt losses.

Selection bias in credit impact studies occurs in at least three ways. First, lenders do not select their borrowers randomly. Rather, specific qualities increase the probability of successful credit transactions. Clients with these characteristics may not be representative of the poor population. Second, some poor people who are highly risk-averse choose not to participate in credit programs, making it difficult to generalize program impact to the entire population and to replicate successful programs for poorer target groups. Third, microcredit programs tend to operate in locations that are not chosen randomly but that

exhibit certain economic features, such as transportation access, that make generalization problematic.

Impact studies face the counterfactual conundrums of identifying additionality using "before and after" and "with and without" comparisons. How much of the change in a borrower's behavior comparing the before and after participation situations would have occurred in any event or reflects the influence of factors other than participation in the program? Likewise, what behavioral changes would have occurred over time if the borrower had not received credit? Related methodological problems arise when borrower recall is relied upon by researchers in the absence of baseline data and because of the impossibility of choosing a control group, which would have to be identical to the experiment group but for some reason declined to take credit.

Case studies of borrowers offer an alternative means of gaining insights, but suffer several disadvantages. One is that they are often rejected by professional researchers because they do not have statistical validity. They are usually costly, especially if sufficient numbers are undertaken to provide the basis for statistical inference. They are often undertaken primarily to provide heroic stories for promotional purposes, failing to include borrowers who fail or who default. However, case studies can indicate general patterns of development. For example, when innovations such as coffee, tea, pyrethrum, hybrid maize and dairying became available to smallholders in Kenya in the 1950s and beyond, it was observed that success with one innovation provided funds used for the adoption of another.

Because of the formidable methodological problems in credit impact analysis, it is not possible to state categorically that credit alleviates poverty, or the extent to which it may contribute to poverty alleviation. But, as noted above, money does have an impact on those who spend it -- the difficulty is knowing what changes in behavior it induces at the margin. Market research such as conducted by ACTIONAID, BRI and Oxfam, for example, is much more rewarding in addressing this question (Johnson and Rogaly; Robinson, 1996), and case studies can also give valuable insights (Moll). Historical perspective can also be extremely illuminating (Kratoska; Schmit).

The only unambiguous impact of a credit project is on the capital of the lender, which either loses money, breaks even or makes money from engaging in lending and bearing the risk of doing so. This impact can be ascertained relatively easily from well-kept accounting records. However, it is virtually never measured by donors or their clients. This is unfortunate because sustainable lending institutions generally are essential for sustainable development. Lenders that lose money are unlikely to be dynamic or sustainable. The demise of such lenders serving the poor may leave the poor without a continuing means of maintaining or improving their situations. Many microentrepreneurs seek continuing access to loans for working capital and investment.

F. How Financial Markets Expand their Outreach

How can the technical constants of sustainable finance, which might be called financial laws of gravity, be used to put people first? This is a critical question because attempts to put people first while working against financial laws of gravity do not generate activities which go from strength to strength over long periods of time. Efforts to expand the outreach of financial markets require innovation, which by definition is cost-reducing.

Cost reduction in financial innovation does not have to be across the board, however. For example, a lender might build a good business by offering clients a new service that greatly decreased their costs even if it increased the lender's costs. For example, assume an innovative lender offers a new service that competes with an existing service. Borrowers' transaction and interest costs currently amount to 60% of the amount of the loan from the existing source, while their costs for the new service are 40%. Assume also that the costs of providing this new service are higher than those of any of the other services the lender officers. However, the lender is able to charge a rate that covers her costs. Success in creating and maintaining a clientele for this new service indicates that it is more economical than those that it competes with. In a competitive market other lenders would quickly move to replicate the service and improve it, putting pressure on the prices charged by the innovator.

Helping "finance to do what finance should do" focuses attention on financial laws of gravity and on sustainability, which is what finance should do because it is based on trust. Competitive financial markets are by nature innovative, offering great scope for outreach. Again by its nature, however, efforts to improve the operation of financial markets generally may be the most fruitful for most donors most of the time. This is because they are not part of the market, and because they face governance, information and incentive problems which account for the extremely poor showing of their operations that have promoted directed credit. Support at the general or system level provides greater scope for the potential innovators in the market who would do specific things to help the poor. At the general level, what is important, how do things work, and what might be done?

1. Value, Risk and Confidence

Credit markets create "value." They do this by providing money against promises to repay. In financial terminology, the value they create by monetizing promises is measured by the amount of money they provide.

This valuation process makes financial markets unique because all financial contracts have a time dimension. This creates risk because the future cannot be accurately predicted -- risk is the certainty that things will not always work out as planned or promised. Why would anyone enter into a financial contract in such a situation?

The third characteristic of financial markets, after value and risk, is confidence. Transactions occur voluntarily only when risk is offset by confidence. Confidence is generated in two ways in financial markets. Actuarial confidence predominates. It is based on experience, permitting borrowers and lenders to judge each other's promises using information about intentions, capacity and character. Confidence is also created by guarantees such as "hard" collateral that the lender can easily repossess and liquidate, and by third parties such as governments issuing promises that are in some way legitimized by lenders. The balance between risk and confidence determines how much value can be created, from none at all to considerable sums.

Financial markets do not operate in a vacuum, however. Confidence generally is a function of how society perceives risks, including the future. In this dimension, governments have tremendous influence on confidence, creating it or destroying it. Government actions that help to create confidence include provision of justice, protection of property and provision of personal security, and through consistency in policy and in its application. Governments destroy confidence by creating high rates of inflation, by arbitrary measures, through corruption, and by losing wars.

The valuation process enables credit markets to produce social benefits by defining and evaluating risks, by spreading and managing risk through the creation of confidence, and by creating value by providing funds to borrowers for productive or other purposes. Accordingly, efforts to offer credit to those who have not used it before, or who are not known to lenders in a position to assist, requires risk assessment and confidence creation.

2.Expanding the Frontier of Formal Finance through Innovation

In the normal course of events in market economies, given broadly penetrating economic development and a reasonably competitive financial sector, more people will have access to formal credit as they become urbanized, educated and employed in the formal sector. This form of financial market expansion is largely passive. However, innovation in finance can transform the market through active outreach.

Innovation occurs in credit markets in three ways. The first is by reducing transaction costs. These costs are the admission tickets to financial markets (Puhazhendhi). They are incurred by lenders and by borrowers. Transaction costs include time and effort devoted to creating confidence, as in soliciting, providing and analyzing information. They include fees, possibly bribes when lenders are state-owned, and other out-of- pocket expenses incurred in applying for, processing, disbursing, collecting and repaying a loan.

The second way credit markets innovate is by lengthening term structure. Term structure may be defined loosely as the time horizon of a credit market, represented by the loan maturities offered. Poorly developed credit markets, and credit markets under stress from inflation or other causes of high levels of uncertainty, rarely provide long-term loans because confidence is insufficient to offset or manage risks. In this situation loans tend to be relatively small because relevant repayment capacity is limited to that

available over a short period of time, such as the period until the next harvest or paycheck. Repayment capacity beyond the relevant time horizon is discounted to zero in this case. If confidence can be created so that repayment capacity over a longer period is considered relevant, loan sizes increase because a larger volume of repayment capacity has value. Lenders who look to several harvests or many paychecks as the sources of funds enabling loan repayment can issue longer term loans much larger than short-term loans.

The third way that credit markets innovate is by refining valuation processes. The essence of valuation is the lender's view of what she is lending against. Changes in this view stem from new ways of viewing risk and creating confidence. In Bangladesh Grameen Bank is able to monetize the promises of poor women who have never before held money in their hands. This is possible through the use of peer group support, otherwise unorthodox small, weekly installments and systematic procedures that communicate expectations and rules.

In the United States loans to small businesses are viewed two ways: The first is that such lending is risky because these businesses are often poorly capitalized, their owners are often not well-educated or highly skilled, and these firms and possibly the markets in which they operate are marginal and subject to rapid change. Those with this view lend little to such businesses. The alternative view is that the behavior of portfolios of loans to such businesses resemble the behavior of credit card portfolios created by cardholders who elect to borrow against their cards. Bankers know how to manage these profitably. Those with this view are willing to engage small businesses.

Refinement of valuation processes permits great shifts in business practice, rapidly creating lots of new lending opportunities and relationships. Efforts to reduce transaction costs and lengthen term structures are usually much more plodding, however essential they may be to expanding the outreach of financial markets.

3. The Context for Innovation in Finance

Innovation is of course risky. Some attempts will fail. This poses a potential problem for donors and governments interested in making formal financial markets more inclusive while at the same time contributing to sustainability. When should failure be tolerated, and how can its adverse effects be contained? There are two conditions under which failure should be tolerated or even applauded as useful in providing new information. The first condition is that the innovation is designed using the best available information. The second is that the failure is committed only once and that the cause of failure is analyzed and the results widely disseminated. Respect for each of these conditions requires massive changes in the ways that donor agencies and many governments intervene in financial markets for purposes that allegedly provide social benefits. Donors with few exceptions have little institutional memory regarding credit projects and are not keen to disclose the results of their ventures. As a result, mistakes are replicated freely.

Another difficulty is that it takes a long, painfully slow time to test most financial innovations that might be especially useful to the poor. This is because the risks of innovation take time to emerge and play out. In agricultural lending, for example, there are usually only one of two harvests per year. It may take several years before a bad season results in a poor harvest, which durable agricultural lenders have to be adept at addressing. Even Grameen Bank seems to be facing increased risks (Bornstein) in the harsh environment in which it operates. Of the 11 relatively large, successful microfinance institutions identified by Christen and others (1995) for USAID in the early 1990s, two have apparently suffered serious setbacks and an affiliate of a third discovered that one-third of its portfolio consisted of loans to fictitious borrowers. A fourth, a large operator in the Subcontinent, is late in providing financial information to the public.

An interesting conclusion that merged from a 1996 conference on finance for the poor convened by OECD and IFAD was that it often takes about 10 years to build a successful microfinance institution (Schneider). This has several implications for promoters: one is that the promoter should plan to remain involved throughout this period in order to have any chance at all in contributing to sustainability. The second is that rapid replication of a model that seems to experience early success may in the end lead to broad failure. The quest for "scale" that currently characterizes official support of microlenders therefore faces a number of unknowns. Fear of the unknown is not developmental, but neither is uninformed venturing without some sense of the risks and probabilities and their consequences. This type of strategic information is virtually impossible to cull from the materials generated by donors on their financial market interventions.

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