FOR RESTRICTED CIRCULATION S S (DEAP) : 6/2003

RBI STAFF STUDIES

MICROFINANCE INITIATIVES FOR EQUITABLE AND SUSTAINABLE DEVELOPMENT : PROMISE, PERFORMANCE, PROSPECTS

Deepali Pant Joshi

DEPARTMENT OF ECONOMIC ANALYSIS AND POLICY

NOVEMBER 2003

GR 11111

MICROFINANCE INITIATIVES FOR EQUITABLE AND SUSTAINABLE DEVELOPMENT : PROMISE, PERFORMANCE, PROSPECTS

"My ideal is equal distribution but so far as I can see it is not to be realised. I therefore work for equitable distribution." - Mahatma Gandhi.

Deepali Pant Joshi*

The decade of the 90s has seen a paradigm shift in development thought. The supply-led models of development and credit-delivery have given way to models of participatory development focusing on demand-led growth. There is now growing evidence that microfinance programmes have the potential of assuring equitable and sustainable development. The real challenge lies in mainstreaming microfinance to ensure that outreach and sustainability grow in tandem. Institutional self-sufficiency and economic viability are synonymous. The focus today is on expanding access to growing numbers of low-income borrowers and savers and of harnessing the resources of the formal financial structure to that end. This paper outlines the challenges and choices before policy-makers that will be critical to the growth of microfinance in the years to come. It presents the current debates, emerging concerns and proposes a framework for identifying the most effective sequencing of policy reforms and selecting the most suitable forms of intervention.

Introduction

More than 1.3 billion people around the world live in poverty with the vast majority in rural areas. The rural poor are largely dependent on agriculture to sustain their meagre incomes and in urban areas the poor, especially women who bear the double burden of being poor and being women, are concentrated in the unorganised sector of the economy as workers or home-based providers. Developments in the last two decades in the provision of financial services to the poor, both savings and credit, have demonstrated the potential of microfinance. Poverty is an unacceptable human condition. Microfinance as an important means to address the critical challenge of poverty enables, the hardcore and asset less poor to access socio economic entitlements.

Several challenges still confront rural financial intermediation; challenges of selecting the set of institutional design and policy

* Dr. Deepali Pant Joshi is General Manager of the Rural Planning and Credit Department of the Reserve Bank of India, Mumbai. The paper was prepared while in residence at Harvard on a fellowship offered by the Harvard University Asia Center and the Asia Society through the Reserve Bank of India. The views expressed are personal and in no way reflect the views of Harvard University, the Asia Center, the Asia Society or the Reserve Bank of India.

alternatives that will prove to be most effective in different socioeconomic environments. These challenges include:

- Refraining from utilising subsidy and concessional interest rate-driven models as the only vehicles for service delivery to the poor.

- Encouraging financial service provision for the poor through both rural and urban operations, as opposed to an exclusive focus on the delivery of supply-led agricultural credit or subsidy driven credit for input provision.

- Providing saving services and not merely credit services.

- Implementing best practices in microfinance by adapting them to specific socio-economic/socio-cultural contexts.

Poverty is defined as the deprivation of basic capabilities. Over the past few years, India has focused its efforts in expanding the reach of microfinance by leveraging the resources of the formal financial sector for making it accessible to the poor for savings and credit. Against this background, this paper makes an attempt to present the current microfinance scenario in the country and the choices it entails for policy formulators.

The framework of analysis is as follows: This paper is divided in to six sections. Section II deals with the concept of microfinance and presents a historical perspective. Section III presents the major models and design issues as well as the parameters of evaluation of the efficiency of micro-credit providers, Section IV provides discusses microfinance in India. Section V focuses on regulatory concerns and Section VI lays down the challenges for public policy formulators.

Section II
Microfinance - the conceptual frame

Microfinance is defined as "the provision of thrift, credit and other financial services and products of very small amounts to the poor in rural, semi-urban or urban areas so as to enable them to raise their income levels and improve their living standards." Microcredit is, thus, the provision of credit to the poor and the hardcore and assetless poor who lack access to credit provided by formal financial institutions. Other financial services could include a broad range of services including credit, savings, insurance and remittances. Typical microfinance clients are low-income borrowers and usually, but not exclusively, women. They are often household-based entrepreneurs who have a steady source of income, however small. Their sole source of credit is the moneylender. They lack secure, convenient and reliable savings services and perforce depend on informal systems as a hedge against emergencies or large lifecycle expenditures.

Microfinance generally refers to small-scale financial services, primarily credit and savings, provided to people who farms or fish or herd or who operate microenterprises where goods are produced, repaired, recycled or sold. Services are also offered to people who provide services, work for wages or commissions, gain income from renting out small amounts of land, vehicles, draught animals or machinery and tools to other individuals and groups at the local level of developing countries, both rural and urban. Such households may have multiple sources of income. Savings services allow savers to store excess liquidity for future use as well as to obtain returns on their investment. Credit services enable the use of anticipated income streams for current investment or consumption. Overall microfinance services can help low income borrowers reduce risk, improve management, raise productivity, obtain higher sums as returns on investments, increase their incomes, and improve the quality of their lives and those of their dependents.

Historical Perspective

In India, poverty has been at the centre of public policy for over five decades. The overarching goals of policy have been to institutionalize credit and to increase its coverage to ensure provision of credit to as large a segment of the rural population as possible so as to achieve anticipated growth rates in agricultural production and employment. A multi-agency approach to development was adopted to sub serve the credit needs of the population.

Post-independence, the cooperative banks were set up in the 1960's. With the Green Revolution there was an increased demand from the farm sector for better seeds, fertilizers and farm equipment and machinery to meet these new and growing demands for credit. Commercial banks were nationalised in 1969 and again six banks in 1980. This helped to give a further impetus to the process of development and to help meet the growing needs of the agriculture sector which in India has traditionally powered economic growth. Regional rural banks were set up in 1975-76. These banks were expected to combine the local feel and familiarity of the cooperatives with the expertise and professionalism of the commercial banks. The local area banks were set up in 1996 to help bridge the gap in credit demand and are expected to provide competition to the existing rural finance providers and efficient financial services and products to their own constituents.

In the late 1960s, the concept of Priority Sectors in terms of which banks were mandated to channel credit to designated sectors was introduced to ensure flow of credit in the desired directions. Broadly, agriculture services and industry sectors comprised the priority sector. Banks had to advance 40% of their net credit to these sectors. Concessional rates were set for priority sector lending and a system of cross subsidies was also put into place to ensure some cushion against the imperfections of the rural markets. This led to a complex interest rate structure including the prescription of a graduated scale of rates of interest with lower rates for the smaller loans. In the early 1990's these complex interest rates were removed and we moved to a system of prescription of uniform rates of interest

linked to the quantum of loans. Interest rates have now been deregulated.

Government sponsored programmes for increasing the flow of credit to the poorest of the poor were strategised through the commercial banks. These programmes were based on the concept of helping the poorest households first). The Integrated Rural Development Programme, implemented throughout the country (on the antyodaya approach) since the 1980's was the most well known of these programmes. These Government Sponsored programmes had a component of credit from banks and a complement of subsidies from the government. The programmes met with limited success. Though well conceived, they were poorly executed and wrongly targeted, with inadequate follow-up. As a consequence they were stymied by poor recoveries, leading to waning enthusiasm for banks lending to the sector. The subsidised credit programmes particularly those meant for the rural poor were the first attempts at extending credit to the asset-less poor. Though crafted with laudable intentions, they were not as successful as envisaged due to the inherent limitations in project design, execution, etc. The subsidised and below-market interest rates charged led to loans being cornered by influential persons. This also led to capital-constrained rural finance providers as the bank's portfolios were characterised by large loan losses and high arrears.

Though the All India Debt and Investment Survey has shown a rise in the institutional debt of rural households to 64%, the informal markets remain important for poor borrowers. Outside the pale of the organised sector is the unorganized or informal sector covering economic transactions of anywhere between 30% and 70% of the countries gross national product, it covers most rural markets, and the peripheral but growing informal sector. Very often chaotic, sometimes complex and often intriguing, this sector has the markets where the poor earn their livelihood. The unorganized sector loosely describes a wide range of economic activities by small firms households and individuals, which to varying degrees may be linked to the organized sector.

Informal markets rest on a base of interpersonal and social relationships, which are invisible but nevertheless tangible. Informal markets are not bound by conventional market rules of administrative law; relational contracts define the rules of business. There are no asymmetries of information. There is full enforcement of contracts and low defaults. Microfinance initiatives build on these strengths of the informal sector. In rural societies of developing countries like India and most of Africa, these behavioral relations are utilised to ensure for participants a set of economic entitlements or economic rights by assuring them access to income streams. These rights are extra legal, in the sense that they are neither sanctioned nor protected by the legal system and are usually non tradable. Microfinance practitioners recognize the importance of these familial or behavioral relations, which are used to reduce risks in poor societies. These behavioral relations are utilized as insurance substitutes and are collateral substitutes. The Joint liability group builds on this social collateral to effectively extend credit to the asset less poor, to the destitute of the lowest deciles who are far beyond the formal financial system. Rural development practitioners are of the view that the informal lenders who are very efficient are best suited to fulfill the needs of the penny economy. The informal lenders are moneylenders, small traders, relatives, friends and similar non-institutional networks. Widespread use of informal finance suggests that it is well suited to the needs of most rural communities. The market would not have been thriving if there had been thriving if there had been no takers for it. Thus, though it is recognised that the interst rates charged are high, the need for credit is so compelling that there is no dearth of takers for loans even at high interest rates. Informal lenders provide valuable financial services at a relatively low cost.

The role and strength of informal finance agents in small-scale economies and their importance to low income households should not be underestimated. The informal sector allows low-income borrowers access to services at a relatively low cost. This is possible because the informal sector is the natural environment for rural people though they typically charge high rates of interest. Microfinance has proved that it can replicate the environment that the poor are most comfortable with, and extend outreach to low-income borrowers

without fleecing them. Many self-help groups have developed successfully through simple operations. In India, the SEWA Bank is one such example. SEWA effectively mobilised rag pickers and beedi workers into small groups and has now emerged as a full-fledged urban cooperative bank.

In the late 1960's, the Indian interventions in rural finance were premised on the popular theories of supply-side finance. The supply leading finance theory rested on the premise of supplying finance in advance of the demand for it. This theory was dominant in development thought in the post Second World War era of the late 1940's and the 1950's and arose as a result of the combination of three ideas. Firstly, that the governments of newly independent nations were responsible for their economic development. Secondly, that it was crucial for economic growth that high yielding agricultural technologies be adopted rapidly and extensively. Thirdly, that most farmers could not afford the full costs of the credit they would need to purchase the inputs necessary for harnessing the new technologies. It was in this context that massive subsidised rural credit programmes were established throughout much of the developing world. Poor farmers would be assured access to credit at below-market interest rates. This, it was believed, would produce higher yields and improve their incomes, powering economic growth. The realities were, however, quite different. Credit subsidies, which are capital constrained, represent a triple-threat to the development of viable financial institutions with wide outreach. They often provided concessional finance at high cost to influential local elites who captured their subsidies, severely limited the volume of institutional credit available to the poor, limiting their access, and created a repressed financial market which depressed savings mobilisation and institutional sustainability. The interest rates charged were too low to cover the operating costs required for the effective combined operation of savings and credit programs and too low to permit institutional profitability.

These policies were well intentioned and were introduced with the expectation that there would be a trickle-down effect of economic growth that would benefit the people. It was also easier for the

governments of the newly independent countries to intervene in the rural credit markets than to take hard decisions and face the problems that the implementation of structural reforms, land reforms and the creation of farm employment would have entailed.

The banking sector reforms initiated in India in the early 1990's entailed a re-look at rural credit and the efficiency and efficacy of subsidised lending to the poor through the commercial banks. In 1990 the National Bank for Agriculture and Rural Development initiated a pilot project of linkage of 500 self-help groups with banks. In 1996 the SHG linkage program linking the non-formal sector represented by the self-help groups and the institutional credit delivery system of commercial banks cooperatives and the RRB's was operationalised throughout the country.

In 1996, RBI included financing of SHGs as a mainstream activity of Banks under Priority Sector lending. Over the years the SHG-Bank linkage program gained momentum and as on 31-3-2003, 7,17,360 lac SHGs have been credit linked by various financial institutions. The emulative amount disbursed stood at Rs. 2048.70 crore. Thus SHG-Bank linkage program has emerged as a major microcredit provision model in India. The mission statement on microfinance is to extend financial services to ½ of India's unreached and underserved poor numbering 100 million through 1 million SHGs with a focus on women through various microfinance interventions by 2008. A series of initiatives to create an enabling environment have been taken to ensure that complementary and competitive models of microfinance delivery are encouraged to coexist and grow.

Section III

Major Models, Design Issues and Parameters of Evaluation

To achieve scale with outreach and sustainability it is essential to move away from the model of microfinance 'delivered exclusively through government sponsored programmes' to a market-based institutional capacity. In order to expand the outreach scale of this

mission on a sustainable basis. Regulation by Governments and central banks leads to a one size fits all uniformity. Sometimes virtuous intentions have unintended evil consequences. Distortions in market subsidies lead to financially repressed markets. The programs do not result in efficiency, there is definitely a need for an active role for governments and central banks in establishing favorable policies and supportive laws to facilitate the smooth functioning of rural financial markets and for encouraging the entry of new players. They must, however, limit their direct intervention. A greater role has to be assigned to private providers with emphasis on transparency of operations, efficiency and accountability.

Experience has shown that there is, no single demonstrable institutional form with optimal utility that works best in providing financial services in rural areas. Government policies that translate to good governance and the overall economic environment are the main determinants of project performance. There is, in sum, no magic seed that works everywhere, at all times and in all climes. In India we have not singled out only one model as superior. Several models have been allowed to co-exist as long as the ultimate objectives of increasing access to credit to the poor with institutional self-sufficiency are served. This also enables financial innovation for designing new delivery mechanisms and promoting research, management information systems and for the dissemination of the best practices in microfinance. Financial products and services on offer can be tailored to meet the needs of poor borrowers. We have seen an emergence of NGO's who have been drawn into financial intermediation as a matter of expediency.

A three-pronged approach has been adopted with mutually complementary and reinforcing strategies. First, mainstreaming financial institutions such as cooperatives and commercial banks, regional rural banks, and local area banks in a supportive policy and institutional environment. Secondly, the larger microfinance providers were encouraged to expand their services through conversion to local area bank (Basix is one such example) federate. There are also financial linkages available through the SHG - Bank linkage model to enlarge their services. Thirdly, the growth of a range of community

development financial institutions owned and managed by the community, SHG clusters and a federation of SHGs are encouraged.

Much of the skepticism about financial viability rests on the premise that microfinance is donor-driven poverty alleviation. In fact, it is increasingly understood that only the application of commercial principles to microfinance can ensure the sustainability of operations. This translates into the long-term capacity of institutions to increase penetrative outreach to those previously excluded from financial services. Sustainingly makes it attractive for all stakeholders, commercial microfinance is a potent force. Financial institutions and committed stakeholders will play a crucial role in fusing the small scale, donor-driven microfinance of today with the formal financial systems of tomorrow, systems that will ensure provision of high-quality financial services on a permanent and ever increasing scale to millions of poor households around the world. Micro finance at commercial rates that is cost covering rates of interest for microfinance provision has achieved tremendous outreach. This approach has the merit of converting latent demand into effective demand, removing the expectation of low interest rates and capital subsidies that have spoilt borrowers over the years, restoring repayment norms and most importantly, ensuring participatory development by including local stake holders and building grass root financial structures. Microcredit empowers the borrowers - it helps free them from poverty and enables them to take charge of their lives and their destinies.

Studies by various agencies have shown that the self-help savings and credit groups have the potential of bringing together the formal banking structure and the poor for mutual benefit. The benefit to the formal credit institutions lies in the externalisation of part of the credit cycle, *viz.*, assessment of credit needs, identification of borrowers, disbursal of loans tailored to borrower needs and requirements, more effective supervision of end-use of loans leading to better loan repayment, reduction in the formal paperwork involved and a consequent reduction in transaction costs and perhaps most significant, improved recoveries (the joint-liability group model has shown dramatic recovery rates). The NGOs have a critical role in organising the rural poor into self-help groups. These organisations

have emerged as critical links between organised credit-disbursing agencies and those who have the need and are able to obtain credit from these institutions. In view of the effective of NGO's to fulfill this function and the demonstrated need for routing financial assistance to the poor through some intermediate agency, the self-help group bank linkage model has been adopted as the dominant paradigm.

In India, it is expected that by utilising over 139,000 rural retail outlets of the formal banking sector comprising 33,000 branches of commercial banks, 14,500 branches of regional rural banks, 92,000 cooperative societies servicing a population of 4,700 per rural outlet, will considerably expand the outreach of microcredit providers. The cumulative number of SHGs financed by banks up to March 2003 has gone up to 7,17,360. The number of poor families who have accessed bank credit up to March 2003 was 11.6 million with approximately 58 million beneficiaries. Ninety per cent of the SHGs are women groups this best illustrates the phenomenon of feminisation of credit.

The two major approaches to microfinance are the poverty lending approach pioneered by the Grameen Bank of Bangladesh and the commercial finance approach of the Bank Rakyat Indonesia. The Grameen Bank extends small loans of less than Rs 4000 to the asset-less and the hardcore poor who lack physical collateral but may be in a position to offer social collateral. The Grameen bank extends loans to them on the joint liability of all the group members and uses peer pressure to ensure the recovery of its loans. The Grameen Bank finances the poor owning less than half an acre of land. Loans are for the purpose of household enterprises, extended to small groups of five or ten members that undertake thrift and credit activities utilising their own resources. These loans are extended for small income-generating projects and farm activity and are extended to individual borrowers within the group. The group provides the guarantee for end use and recovery of loans. If one borrower within the group defaults, the other members of the group bring pressure on the defaulting borrower to make good the loan. The penalty for individual default rebounds collectively on the group who are not able to access fresh loans. This stick has proved to be an effective recovery guarantee mechanism. The members of the group are also

given the freedom to self-select borrowers to constitute their groups. Not surprisingly affinity, activity or association links these groups. The groups meet regularly and recovery installments are also paid in to the Grameen representative at these meetings.

A larger social purpose is also sub served as members take a pledge to implement the 16 decisions that carry social messages. The frequent meetings lead to greater follow-up on the end use of loans and also to bonding among the group members. The Grameen has adopted a credit plus approach that its 16 decisions illustrate. It has transformed into the world's largest bank, serving 2.3 million borrowers, 94 per cent of whom are women and all of whom were living in abject poverty before they began receiving micro loans. These small loans have been used to capitalise more than 500 businesses including food processing, cottage industries and trading. Several Grameen replications have emerged such as the Amanul Ikhtiar in Malaysia, the Centre for Rural and Agricultural Development of the Phillipines, the Society for Helping and Awakening the Rural Poor through Education and Activists for Social Alternatives are the prominent ones.

The second approach of the Bank Rakyat Indonesia is characterised as the financial systems approach. The BRI has a special assignment from the government to provide banking services with special reference to agricultural credit to the farmers Usaha Tani. The BRI serves all segments in the banking industry including micro, medium and large businesses and both individual and corporate clients. The BRI's Unit Desa system (the micro-banking division) has made the Bank famous due to the successful provision of financial services to low income borrowers. In 1984 BRI began its new program of general-purpose credit called Kupedes. Kupedes kredit Ummam Pedesan offered through the penetrative outreach of the Unit Desa system broke even in two years. Initially small loans were extended for productive activities. By 1986, this also included a package of savings services provided throughout the country. The spread between the loan and deposit interest rates was set to cover all estimated costs, financial and non-financial, and to generate a profit. Unit Desas have been profitable since inception and even in the worst phase of

the recent economic crisis continued to provide stable savings deposit and credit services to their members.

A report prepared by the World Bank Operations Evaluation Department in 1996 assesses their success on the following basis: "The program succeeded because the banks loaned at market rates, used income to finance their operations, kept operating costs low and devised appropriate saving instruments to attract depositors. By mobilising rural savings, the Unit Desa system was not only provided with a stable source of funds, it also kept financial savings in rural areas thus helping growth and development in rural areas. In the countryside, the simplicity of loan design which enabled the banks to keep costs down, effective management at the unit level backed by close supervision and monitoring by the centre and through the institution of appropriate staff training and incentives for good performance."

The Banco Sol is a financial institution, which targets low-income micro-entrepreneurs and provides financial services to them at rates, which are commercially viable. The Bank for Solidarity (Banco Solidario) emerged through solidarity group lending and was the first bank in Latin America built explicitly to provide financial services to micro-entrepreneurs on a national scale. The bank emerged from the Fundacion Para de la Promocion y Dessarello de la Microemperesa (PRODEM), an NGO that provides commercial credit to micro-entrepreneurs. PRODEM was founded in 1996 by ACCION International, a U.S. based NGO operating in Latin America and by a group of Bolivian business leaders. Funds were provided by USAID, the Bolivian Social Emergency Fund, the Calmeadow Foundation and donations from international and Bolivian foundations and the private sector. PRODEM became highly successful in delivering and recovering micro-credit provided at competitive interest rates with full recovery. However, being an NGO and dependent on donor funding, it remained capital constrained. PRODEM was legally restrained from collecting savings from the public or borrowing from the Central Bank. In order to gain access to other sources of funds, increase the volume of lending and provide full financial services to micro-entrepreneurs, PRODEM's Board of Directors decided to set up a

private commercial bank to meet the needs of micro-entrepreneurs in exchange for an 18 per cent share in the equity of Banco Sol. PRODEM's loan portfolio and staff were transferred to the new bank. Banco Sol, like the BRI's Unit Desas became financially self-sufficient and sustainable in less than two years after it was set up. The USAID's study of 11 microfinance programs lists Banco Sol as being profitable and self-sufficient in 1993, calculated on a commercial basis. The overall contribution made by PRODEM and Banco Sol reaches far beyond their clients. Banco Sol has demonstrated that regulated, financially self-sufficient microcredit institutions can access international commercial markets, thereby removing funding as a constraint to the development and growth of microfinance.

The new paradigm lays emphasis on the idea that given enabling economic, political, legal, regulatory and demographic conditions, commercial institutions can be developed to provide financial intermediation for the economically poor and can also deliver services at the local level profitably.

There are four major micro-finance models prevalent throughout the world:

1. Institutions provide microcredit but are not allowed to mobilise savings from the public as they are not regulated or publicly supervised. A large number of microcredit providers are in this category.

2. Banks or financial institutions wholesale funds to NGOs who retail these funds to self-help groups.

3. The NGO emerges as a financial intermediary.

4. Banks emerge as grassroots-level developmental agencies and lend directly to the self-help groups.

There are several issues that impinge directly on the twin

objectives of expanding access to microfinance and integrating microcredit as part of the formal financial sector. The two major approaches, the poverty lending approach and the financial systems approach are still being refined. One sharp distinction between the two is that while the poverty lending approach focuses on the poorest of the poor through government, donor or subsidised funds, the financial sector approach targets the economically active poor micro-entrepreneurs and building on their existing skills and capacities, seeks to set up viable income generating projects that enable them to build income streams and generate cash flow which would be sufficient to pay back the loans and also be deployed back to expand their micro-enterprises. Thus, Bank Rakyat Indonesia and Banco Sol advocate commercial microfinance for the entrepreneurial poor.

The funds needed for microfinance institutions to expand their reach on a large scale can come only from the vast resources of the financial system with self-sufficient institutions emerging as financial intermediaries to facilitate the efficient movement of capital between savers and borrowers. Such commercially viable microfinance institutions can also eventually access funds from central banks and direct from markets.

Section IV

Microfinance in India: Approach and Experience

India has not restricted itself to any one approach. Innovation, competition and new institutions are needed to widen and deepen the financial markets. This will increase avenues of access to funds to the un-reached poor and soften their vulnerability to external shocks. The poverty lending approach may not be successful across the board. The financial system approach often ignores the socio-cultural issues that may affect the ability of the poor to become economically active in order to avail themselves of such services. Rather than focus on which approach is better, India has decided to let a hundred flowers bloom.

For greater access to the financial system one of two things

will have to occur with respect to the microfinance institutions. Either the financial institutions will have to offer microfinance services downscale or the microfinance institutions will have to become licensed and upscale. Growth of financial intermediaries that address the needs of small-saving and small-borrowing micro enterprises will have to be encouraged while strengthening and increasing capacities of RRBs, Cooperatives, LABs and commercial banks to mainstream microfinance and bring it to center stage.

As an incentive for banks to lend to this sector, microfinance forms part of banks' priority sector lending portfolio and this is monitored by the Reserve Bank. Banks include micro-credit as part of their corporate credit plans. Interest rates have been freed and microfinance providers are free to charge interest rates on a cost-covering basis or as per their reading of the microfinance market. Banks are also free to design and to price their own products as per their commercial judgement.

The National Bank for Agriculture and Rural Development (NABARD) and the Small Industries Development Bank of India (SIDBI) are active partners in the self-help group/Bank Linkage Program. The SIDBI has instituted a microfinance development fund for training and capacity building of micro-entrepreneurs. In his budget speech for the year 2003-04, the Finance Minister has also emphasised the importance of small and medium enterprises that have great potential for creating jobs and employment opportunities and for powering economic growth.

In his budget speech for 2001-02, the Finance Minister of India announced the setting up of a Micro Finance Development Fund which has since been operationalised through the NABARD and with contributions from the Reserve Bank of India and commercial banks. The share of commercial banks has been computed as a percentage of their net working funds in proportion to their Capital to Risk Assets Ratio. The objective of the fund is to boost the microcredit movement. The fund is geared towards training, capacity building and sensitisation of banks, NGOs, SHGs and government extension agencies as well as for providing start-up funds to microfinance

institutions to meet their initial operating deficits, meet the cost of formation and nurturing of SHGs, design new delivery mechanisms, promote research and dissemination of best practices, study international best practices and their applicability in the Indian context. The fund is also expected to address institutional and credit delivery issues, issues related to institutional growth and transformation within the existing legal and regulatory, frameworks, issues related to business practices, ethics and governance and issues related to access to sources of funding to ensure sustainability of the institutions functioning as financial intermediaries. It aims to catalyse the microfinance sector by deepening and widening it, building new products' encouraging financial innovation and intermediaries, increasing the economic efficiencies of existing institutions to enable them to provide better financial services to the poor and to strengthen the framework through which microfinance services are provided.

Some of the emerging concerns that are engaging the attention of financial intermediaries, financial institutions and policy makers are enumerated below:

- The huge unmet demand for microfinance services specially among the poorst of the poor. There is a huge unmet demand for microfinance services in India. As the economy grows more diversified, credit needs increase. The 1999 census report states that about 70% of Indians live in rural areas and are largely dependent on agriculture. The rural economy is growing more diversified as rural households strive to move into non-farm and non-agricultural activities to ensure additional sources of income. Overall, 35% of India's population is poor and more than 30% of the population still lives below the poverty line. Poverty is both chronic and transient. Across the country more than 470 million people live on less than US$1 a day. There is a great demand for microfinance services from households and enterprises in the informal sector of the economy. In the informal, sector, micro-enterprises provide an income stream for poor entrepreneurs. They recycle and repair goods that would otherwise become waste and provide cheap food, clothing and transportation for poor people including those at the lower levels of the formal

sector who would not otherwise be able to live on their small salaries.

- There is exclusive focus on credit rather than on both savings and credit. Savings have been termed the forgotten half of microfinance, as most of the models are credit-driven. The contribution of financial markets to development cannot be restricted to providing credit but must offer savings instruments to facilitate transactions. The desire and need to save are great. The poorer the family is, the more desperately it needs to save for protection against emergencies and for meeting urgent lifecycle needs such as births, weddings and funerals as well as for cashing in on opportunities which liquid assets ensure. Money on-hand has self-explicit drawbacks, especially for the poor. It can be stolen, borrowed by relatives, readily consumed or lost. It yields no interest and its value declines with inflation. Savings instruments, which are highly liquid and divisible, are most needed by the poor to diversify and manage risk. Incomes limit the range of assets poor households can hold hence the tremendous demand for savings services.

- The lack of sustainability of most of the microfinance institutions. Most NGOs are characterized by a high level of operational inefficiency, and have a very limited capacity to serve an increasing segment of the market on a continuing and sustainable basis. Most of the state-sector institutions that provide microfinance services have been created within and nurtured by a distorted policy environment and characterised by various degrees of financial repression. They do not have a business culture.

- The present average amount of loan at Rs. 1.360 per poor family is not sufficient to help the poor to cross the poverty line. MFIs are currently only credit providers and are unable to provide other services like savings, insurance, etc., which are critical in reducing, vulnerabilities of the poor. Furthermore, the existing savings and loan products are not sufficient to suit the

requirements of the poor *viz.*, consumption, housing, education, etc. In addition, the spread of micro finance has been uneven across the States - five States *viz.*, Andhra Pradesh, Tamil Nadu, Uttar Pradesh, Orissa and Maharashtra accounting for three fourths of SHGs.

Section V

Regulatory Concerns

Regulatory issues could impinge on the processes of institutional strengthening. Regulation of microfinance has come to the center stage as the major issue confronting this nascent industry. The NGOs, commercial banks and central banks have been debating on the appropriate institutional mechanism for regulation. It is interesting to first review the major arguments advanced for and against regulation and then to view these through the prism of the proponents' underlying objectives.

- NGOs with large micro-credit operations are major proponents of regulation. Seeking to gain access to larger donor funds, *i.e.*, seeking to fund themselves NGOs desire regulation, which would add to their credibility and facilitate access to credit lines from donors, governments, central banks and the public.

- Sometimes NGOs believe that regulation will promote their business and enhance their standing with the public, making it easier for them to garner public deposits.

- Some Governments, NGOs and donors want financial licenses to be more easily and widely available to increase the efficiency of financial intermediation access to both savings and the consequent increase in lending operations.

- Governments and central banks are often of the view that setting up a special window for regulation of microfinance would expedite the emergence of sustainable microfinance institutions who will not be capital constrained.

- The Central Bank and Governments often share the apprehension that with unlicensed microfinance institutions, the safety of depositor's funds cannot be ensured. The safety of deposits may be jeopardised through the operations of rogues or fly by night operators out to make a quick buck by floating Ponzi schemes. The desire to protect the safety of depositors' funds, which is the mandate of Central Banks, prompts the focus on the need to regulate these institutions.

- Many microfinance institutions charge very high rates of interest. Governments and Central Banks may share the view that interest rate caps should be put in place to ensure that depositors do not have to face exorbitant and usurious rates of interest.

- Central Banks/Governments are often concerned by the weakness of microfinance institutions; their concern is that microfinance institutions are too loosely regulated by their own Boards and Donors. The failure of microfinance institution could bring the emerging market in disrepute with negative consequences for future growth and development of the sector.

- Microfinance is also getting a high political profile in several countries, especially since the Microfinance Summit of 1997. Governments feel that they have to do something about microfinance for reasons that combine concern for the poor with the demands of practical politics.

- Regulation also serves as a mode of tightening controls on the activities of foreign funded NGOs whose activities Governments may wish to more closely monitor.

In India, the cautious view is that direct supervision of microfinance institutions would stifle the growth of this sector and the demands of uniformity would become an impediment to financial innovation. There are practical problems bank examiners would face in the regulation of microfinance institutions. The costs, both financial and human, are very high. At present, donors have periodic audits to

ensure end use of their funds. Accounts must be submitted to registering agencies such as the Office of the Commissioner of Charities. Banks and NABARD have their own rating agencies. Keeping in view the above, stress has been on loose regulation through a self-regulatory organisation model with insistence that those organisations, which accept deposits from the public and do not restrict themselves to accepting savings from their own members must register themselves as non-banking finance companies/urban co-operative banks which come under the regulatory umbrella of the central bank.

How can the success of microfinance institutions be evaluated? Jacob Yaron, through seminal work in 1992, has introduced a framework for assessing the performance of rural financial institutions. This has gained wide acceptance among practitioners and academics. The framework posits two primary criteria, outreach and sustainability. It is premised on the assumption that rural financial intermediaries can provide a broad range of services to the target clientele in an efficient manner and have the desired impact of expanding incomes and reducing poverty impact. Evaluation on these criteria is a quantifiable proxy for judging the efficiency of rural financial intermediaries.

Outreach is measured by several indicators such as number of clients and average loan size as proxy for income level. Sustainability is assessed by calculating an RFI's prevailing average on lending rate and the percentage by which this would need to be increased for it to break even or to make it fully autonomous, that is, subsidy independent. The subsidy dependence index also indicates the cost to society of subsidising a rural financial intermediary as opposed to the interest earned by the RFI in the market place. The main factors that contribute to self-sustainability are adequate interest on lending rates and interest rate spreads, high rates of loan collection, high levels of savings mobilisation and low overheads and administrative costs. A growing number of successful rural financial intermediaries provide adaptable and replicable methodologies.

These successes indicates ways of developing institutional capacity that would ensure the growth of sustainable institutions delivering efficient services to the rural clientele. An understanding of informal financial markets and the nature of informal contracts in a particular community can provide guidance on the range of workable practices within the community and identify market opportunities to better meet the demand for financial services in that community. Accountable, strong management information systems, personnel and effective savings mobilisation characterise the successful institutions.

Currently the concern is with securing the stability of the entire financial system. The rural credit delivery system has a multi-agency approach, which encompasses the cooperatives, RRB's, LAB's, urban cooperative banks and non-bank finance companies and is under the regulation of the Reserve Bank. The core concern is to ensure that none of these is beset with structural problems.

Recent episodes with Cooperative Banks have clearly brought out that in trying to manage bank risk, the supervisor has to work in a political minefield, as the owners of banks are seldom under-represented in the political process. The supervisor's legal authority to enforce compliance or manage clean-ups is often inadequate. Monitoring healthy banks and ensuring their continued state of health is challenging enough, though the real difficulties arise in restructuring weak banks. In such a scenario it is daunting to append disparate and diffuse microfinance institutions to the regulatory paradigm.

It would prove difficult to bail out a microfinance institution in the event of it facing difficulties. If a bank is experiencing structural difficulties, the first arrow in the central bank's quiver is a capital call to shore up the bank's capital so as to ensure the bank's continued ability to meet the claims of its depositors. This cannot be done in the case of microfinance institutions. Large microfinance providers, even those partly owned by donor agencies cannot immediately produce the requisite additional capital, as their request has to be routed through donor agencies, which may or may not decide to bail out the institution. Finansol of Colombia is one such example. A microfinance institution organised as a finance company, Finansol

suffered serious loan losses, reducing its cushion of owned capital. The supervisor issued a capital call that the principal owner, Corposol, was not able to provide. The NGO board members, not being affected by its failure, chose not to bail out Finansol.

The second arrow in the quiver of the central bank is placing a temporary freeze on the advance of fresh loans. Often succeeding, this serves to protect the interests of existing depositors while efforts are made to resolve the problem. In the case of a microfinance institution, the moratorium has harmful consequences as most microfinance institution clients repay loans in the hope of fresh loans and with the expectation of receiving reliable and responsive future services. If the microfinance institution denies prompt follow-up loans to clients who have punctually repaid their loans in the past, it is breaching an implicit contract. The minute the news spreads, many borrowers will stop repaying their existing loans, creating further difficulties for the institution. A related problem lies in that a microfinance institution's principal assets consist of micro-loans that have little value once they are out of the hands of the team that originated them.

In the case of a bank, which is in trouble, the central bank uses the third arrow in its quiver - it encourages acquisition by a stronger bank. Most of the sick bank's loans in case of institutional failure or apprehended weakness are still backed by collateral guarantees; hence the borrowers incentive to repay is mitigated. The healthy bank taking over the loan portfolio can expect to recover most of it and therefore has an incentive for acquisition. There may be other incentives; for instance, the physical infrastructure of a failed bank in an area which is underserved by the stronger bank. The acquiring bank would also receive an infusion of funds from the central bank and government as part of a bailout package. Hence a sick bank is rarely left to fail. In the case of a microfinance institution, if the loan portfolio comprises micro loans, the costs of collection would be higher than the actual recoveries. The microfinance institution's loan portfolio would be of little value and a healthy institution would not take the contaminated portfolio. This would burden the central bank with a problem that it can well afford to avoid.

The non-financial costs of regulation would be to stifle competition and financial innovation as the microfinance institutions would devote their energies to attempts to circumvent existing regulation. This would lead to the institution of caps on interest rates, making sustainable microfinace even more difficult. So far programs have been left free to price their own products. Interest rate controls would put a stop to this freedom. Prudential formal regulation under the aegis of the central bank carries with it the implicit understanding that it must vouch for and assume responsibility for the soundness of the regulated institutions.

The indicators of such regulation could include:

- Registration/licensing;
- Disclosure of ownership/control;
- Publication of financial statements;
- Reporting to the central bank;
- Adherence to all controls instituted by the central bank, applicable to all financial institutions regardless of typology; and
- External examination audits, supervisory examination by central bank auditors and compliance with off-site monitoring norms.

Regulation permits no exceptions and is comprehensive. Microfinance institutions that do not accept deposits should not be regulated. Credit-only microfinance institutions are allowed to accept small deposits that more often than not are part of the loan contract. Most clients are net-debtors most of the time; hence the risk to them in case of institutional failure is relatively low. Compulsory deposits do not pose a significant risk to the country's financial system because the amounts in question are small and restrictions on withdrawal exist.

Microfinance institutions could be subjected to a form of non-prudential regulation that would require them to register and identify the partners or parties which control them, give clients transparent interest rate information, produce financial information in a meaningful manner. Regulation also must have some in-built regulatory threshold beyond which there will not be regulation. The cut-off can be determined by asset size or number of members. Some benchmarks would be required as several microfinance institutions are microfinance intermediaries. The rotating savings and credit associations and the accumulated savings and credit associations lend to and borrow from their own members. They are informal credit suppliers. Their small size, community based nature and local roots provide for effective supervision by their members. It would be very difficult and prohibitively expensive for the central bank to seek to regulate these institutions. However, they seldom pose any risk to the country's financial system.

A powerful argument advanced by some experts is that if these small community-based organisations are disallowed or prohibited from accepting deposits a great disservice is done to the poor. The safety of their funds outweighs the risks as the other available savings options for them involve even greater risks. Consider the risks of the other savings options available to them. Cash in the home can be stolen and livestock can perish. Hence the unsupervised, community-based depository may be the least risky option for the saver. If central banks regulate, they accept the onus of (i) affirmatively vouching for the institutions' soundness, and (ii) standing behind depositors as insurers whether explicitly or implicitly.

The shortage of licensable microfinance is the real constraint to the growth of this sector and not the absence of prudential regulation. A license from the Centra Bank is an assurance that the licensed institution is credible and safe. It should be profitable enough not only to cover its costs today but also to pay the full commercial costs of the money its license will allow it to leverage in addition to generating a surplus to fund growth and perhaps provide a return to attract high-quality investors. Institutions that have not demonstrated their ability to function at this level of sustainability should not be

licensed. Non-profitable institutions that eat into their equity will put their depositors at risk.

The supervisor focuses as much on profitability as on solvency and on equity as a percentage of assets. When a central bank issues a license, it imparts its certification and signals that the institution is safe and in most countries it assumes the *de facto* risk of supervision. Regulation by central banks can also be read as promotion. Being under regulation is like riding a ferris wheel - once you get on you cannot get off and have to accept regulations, which may hinder and cramp growth. The self-regulatory model has been mooted as best in the Indian context. Microfinance industry is in a nascent stage and the self-regulatory organisation appears to be the optimum solution. Keeping in view the difficulties of regulation and the costs it entails, it is expected that the self-regulatory organisation will promote federations of microfinance institutions, which will:

- Disseminate best practices;
- Encourage innovation;
- Articulate high and uniformly applicable standards;.
- Set transparent and consistently uniform reporting standards;
- Assist in the training and capacity building of members;
- Provide central liquidity management; and
- Develop and encourage the growth of rating agencies.

The creation of a separate regulatory window for microfinance institutions in India is also premature as there is not a critical mass of licensable institutions.

Section VI

Challenges for Public Policy Formulators

In conclusion, the present position in India is that of trying to create an enabling environment for the growth of microfinance. The NGO and SHG linkage models and the growth of dynamic, responsive microfinance intermediaries are being encouraged. Efforts are being made in this direction and the freeing of all interest rate controls on microfinance is a significant step towards this end. Successful NGOs also have the option of conversion into a licensed non bank finance or an urban cooperative bank, subject to the fulfillment of all other requirements. Only microfinance institutions are exempt from several provisions of the Reserve Bank of India Act, 1934 if they are registered as non-profit institutions under section 25 of the Companies Act. The vision is of a strong and capable microfinance sector emerging as an intermediary of the financial system. While the SHG Bank linkage model appears to be the dominant one, Grameen and Sewa replications are also performing appreciably.

One this is certain - microfinance is here to stay and is growing as a powerful means of empowering the poor and increasing sustainable credit outreach. In the context of our comprehensive national strategies of poverty eradication, the focus is to integrate policies at all levels. These include economic and fiscal policies, capacity and institution building so as to empower the people living in poverty by improving their access to skills and training and microcredit schemes. Devising ways and means to allow for greater acknowledgement of the role of the informal sector so as to evaluate its share in the national economy and, where appropriate, to improve its productivity by increasing training and access to capital, including microcredit to facilitate its eventual integration with the formal economy. Also, establishing, strengthening and expanding microcredit and other financial instruments adapted to the needs and potentials of marginalized people and vulnerable groups so as to improve their access to productive resources and microfinance.

There is no single optimal level or form of intervention. The most appropriate intervention will depend on the objectives and on such variables as the demographics of the target clientele and the socio-economic environment. In designing interventions, governments can mix and match instruments by supporting pilot programmes or providing seed capital.

However there are still certain challenges to be met as detailed below. Policy reforms are necessary for ensuring the development, growth and efficient functioning of rural financial markerts.

- *Legal and regulatory reforms :* Underdeveloped legal and regulatory provisions that require attention are the provisions regarding illustratively land titling and collateral for typical rural assets relative to urban assets. There is no sequentiality in reforms and legal and regulatory reforms may precede the policy reforms.

- *Inadequate financial infrastructure :* This includes legal, information regulatory and supervisory systems for financial institutions and markets.

- *Limited retail level institutional capacity :* Most retail level institutions do not have adequate capacity to expand the scope and outreach of services on a sustainable basis to most of the potential clients. The poor still have inadequate access to credit, savings and insurance services commensurate with their need for these services. Poverty, low population density, isolated markets, highly covariant risk and seasonality often result in high transaction costs, lack of traditional collateral, high income fluctuations and limited opportunities for risk diversification. These features differentiate rural financial markets from urban ones and fail to attract traditional for-profit financial intermediaries.

- *Inadequate investments in agriculture and rural development :* The insufficient investment in physical infrastructure like irrigation, roads, electricity, and support services for marketing, business

development and extension continue to increase the risk and cost of microfinance and particularly discourage private investment in the provision of microfinance services on a significant scale.

- *Inadequate investments in social intermediation :* The low level of social development is a major constraint on the expansion of microfinance services on a sustainable basis. This is particularly true with respect to the poorest, women in poor households, poor in resource-poor and remote areas and ethnic minorities. The development of sustainable microfinance to reach a large segment of the potential market requires supporting social intermediation on a large scale.

These challenges serve to underscore the benefits the rural poor would gain from access to efficient consumption smoothing mechanisms and financial services that would enable them to free themselves from poverty. To this end, well-designed interventions, incorporating special products and operating procedures are necessary. Rapid growth is the only way of combating poverty, creating a favorable policy environment and pursuing reforms in areas where these are most required, so as to put in place policies to upscale and mainstream microfinance. There is definitely a need for proactive action by governments and central banks in establishing the favorable policies and supportive laws that will lead to the smooth functioning of rural financial markets and rapid growth in the rural sector. The legal and regulatory framework should receive the same attention as income expansion. Raising average rural income is not sufficient to reduce poverty if equity considerations remain un-addressed. Simultaneously, however, the parallel administration of programs of targeted inverventions through government is also justified. Sometimes short-term contingencies dictate immediate redress as flood relief or provision of financial assistance following natural disasters.

The main issues in maintaining a favourable policy environment for rural financial intermediation are maintaining macroeconomic stability, removing urban bias in policies so as to promote the growth of integrated and resilient financial markets operating in a virtuous

macroeconomic environment. Microfinance is at a critical juncture - for further growth momentum, it needs a favourable policy, a legal and supportive environment and strong rural financial institutions.

References

Jacob Yaron, McDonald Benjamin, Jr., Gerda L Piprek. *'Rural Finance Issues, Design and Best Practice'*, World Bank Environmentally and Socially Sustainable Development Studies Monograph 14, 1997.

Edwin R Lim, Marilou Uy, Jacques Toureille. *'Microfinace in India'*, 1999.

Christen Robert Peck, and Richard Rosenberg. *'The rush to regulate Legal frameworks for Microfinance,* 2000, CGAP Occasional Paper No. 4.

Rutherford Stuart. *'Raising the Curtain on Microfinancial Services Era'*, CGAP Focus Note, 2000.

Leonard Muttesasira. *'Savings and Needs in East Africa an Infinite Variety Micro Save Africa'*, 2000.

Wright Graham N. *'Market Research and Client Responsive Product Development Micro Save Africa'*, 2001.

Wright Graham N. *'Principles and Practice Myths of Regulation and Supervision Micro Save Africa,* 2000.

Wright Graham N. *'Promoting High Quality Financial Services for poor People Micro Save Africa'.*

UN Capital Development Fund. *'Increasing Access and Benefits for Women: Practices and Innovations among MFIs. Survey Results'*, 2001.

UNCDF SUM. *'Supporting Womens' Livelihoods: Microfinance that Works for the Majority. A Guide to Best Practices'*, 2000.

Graham Wright Robert Christen and Imran Matin. *'Introducing Savings in a Micro credit Institution'*, UNDP/DFID May 2000.

Savings in Africa: A Collection of Studies from Microfinance Africa aundp/dfid initiative May 2000.

UNCDF. *'Innovating from Experience: Gender Initiatives in Microfinance'*, Roundtable Proceedings

Jacob Yaron J.D. Von Pischke, Dale W Adams, Gordon Donald. *'The MicroFinance Revolution Sustainable Finance for the Poor.*

Undermining Rural Development with Cheap Credit Westview Press Boulder Colorado 1992.

Mohammad Yunus. *'Banker to the Poor: Microlending and the Battle against World Poverty'*, 1999, Perseus group.

Agabin Meliza and Jorge Daly. *'An Alternative Approach to Rural Financial Intermediation: The Philippine Experience'*, Occasional paper 6.

Marta Chen. *'Coping with Seasonality and Drought'* 1991 pages 27-31, 105-132 Sage Publications.

Ithaca N.Y and Merillee Grindle. *'Searching for Rural Development labor migration and Employment in Mexico'*, Cornell University Press, 1998; pp23-49and 85-125.

Longhurst Richard Robert Chambers et al. *'Seasonality and Poverty Implications for Policy and Research' IDS Bulletin*, Volume 17 pp 1-3,67-71.

Amartya Sen. *'The Economics of Life and Death, Scientific American'* May 1993 Cambridge; pp40-47.

Claire Robertson. *'Trade Gender and Poverty in the Nairobi Area Women's Struggle for Survival and Independence in the 1980s in Rae Lesser Bloomberg et al eds Engendering Wealth and Well Being Empowerment for Global Change'*, Boulder West View Press 1995 pp65-87.

Elisabeth Rhyne. *'Mainstreaming Microfinance'* 2001 Kumarian Press.

D.C. Joanna Ledgerwood. *'Microfinance Handbook: An Institutional and Financial Perspective,* World Bank, Sustainable Banking with the Poor Project, Washington 1998.

J Murdoch. 'The Microfinance Promise', *Journal of Economic Literature 37 December*, 1999 pp 1569-1614.

J Morduch. 2000 *The Microfinance Schism World Development* 28(4) 617-29

Institutional Organisations: Formal Structure as Myth and Ceremony; J. Meyer and B. Rowan 1999 in The New institutionalism and Organisational Analysis ed.s W Powell and Di Maggio University of Chicago Press.

Mark Grannovetter. *'Economic Action and Social Structure the Problem of Embeddedness'*, American Journal of Sociology, 1985, Vol. 91, 481-510.

Guy Stuart. *'A Commercial Bank Does Microfinance: The Case of Sogesol Haiti'* 2000, Kennedy School of Government Harvard University.

Stuart Rutherford. *'The Poor and their Money'*, Institute of Development Policy and Management', Manchester 1999 and OUP, Delhi 2000.

Oscar Lewis La Vida San Juan. *'A Puerto Rican Family in the Culture of Poverty'*, 1965, New York Random House.

Jean Dreze and Amartya Sen. *'Hunger and Public Action'*, Oxford Clarendon Press, 1990. pp 9-11, 20-34.

Ronald J Herring. 'Changing Paths The new Politics of Inclusion', in *'Beyond the Political Impossibility Theories of Agrarian Reform.* Peter Outzayer, Mick Moore and Ann Arbor (eds.), University of Michigan Press, 2002 manuscript pp 1-35.

Whose Reality Counts? Chambers Robert Putting the first last London Intermediate Technology Publications Copyright 1997 What works and Why pp 130-161.

Martin Ravaillon and Martha Chen. *'What can New Survey Data tell us about Recent Changes in Distribution and Poverty?*, 1997. World Bank Economic Review, May pp 357-82.

Printed at Karnatak Orion Press, 17-18, Prospect Chambers Annexe, Dr. D.N. Road, Fort, Mumbai - 400 001. Tel.: 2204 8843/2204 4578.