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Although the word *finance* is in the term microfinance, and the core elements of microfinance are those of the finance discipline, microfinance has yet to break into the mainstream or entrepreneurial finance literature. The purpose of this article is to introduce the finance academic community to the discipline of microfinance and microfinance institutions (MFIs). We provide a comprehensive review of over 350 articles and address the issues of MFI sustainability, products and services, management practices, clientele targeting, regulation and policy, and impact assessment.

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Introduction

Although the word *finance* is in the term microfinance, and the core elements of microfinance are those of the finance discipline, microfinance has yet to break into the mainstream or entrepreneurial finance literature. The purpose of this article is to introduce the finance academic community to the discipline of microfinance and microfinance institutions (MFIs). We provide a comprehensive review of over 350 articles and address the issues of MFI sustainability, products and services, management practices, clientele targeting, regulation and policy, and impact assessment.

Throughout the world, poor people are excluded from formal financial systems. Exclusion ranges from partial exclusion in developed countries to full or nearly full exclusion in lesser developed countries (LDCs). Absent access to formal financial services, the poor have developed a wide variety of informal, community-based financial arrangements to meet their financial needs.[1] In addition, over the last two decades, an increasing number of formal sector organizations (non-government, government, and private) have been created for the purpose of meeting those same needs. Microfinance is the term that has come to refer generally to such informal and formal arrangements offering financial services to the poor.

Microfinance has existed, although mostly in the shadows and unseen by casual observers, since the rise of formal financial systems, and indeed probably predates them. It has only been within the last four decades, however, that serious global efforts have been made to formalize financial service provision to the poor. This process began in earnest around the early to mid-1980s and has since gathered an impressive momentum. Today there are thousands of MFIs providing financial services to an estimated 100 - 200 million of the world's poor (Christen et al., (1995)). What began as a grass-roots "movement" motivated largely by a development paradigm is evolving into a global industry informed increasingly by a commercial/finance paradigm.

The rise of the microfinance industry represents a remarkable accomplishment taken within historical context. It has overturned established ideas of the poor as consumers of financial services, shattered stereotypes of the poor as not bankable, spawned a variety of lending methodologies demonstrating that it is possible to provide cost-effective financial services to the poor, and mobilized millions of dollars of "social investment" for the poor (Mutua, et al. (1996)). It must be emphasized too that the animating motivation behind the microfinance movement was *poverty alleviation*. Not only that, but microfinance offered the potential to alleviate poverty while paying for itself and perhaps even turning a profit—"doing well by doing good." This potential, perhaps more than anything, accounts for the emergence of microfinance onto the global stage.

Scholarly interest in microfinance has lagged behind industry development, but it too is now growing rapidly. Before 1997, academic journals published only an occasional article on microfinance, but since that time, academic journals have published hundreds of peer-reviewed articles on the topic. Nonetheless, microfinance has yet to break into finance journals. This despite the term *finance* in micro*finance* and the fact that the basic products offered by

[1] A common type of informal financial arrangement found throughout the world is the Rotating Credit and Savings Association (ROSCA). A ROSCA consists of a group of community members who meet regularly to pool their savings. The pool is then lent out to one member of the group, who repays it, at which time it is lent out to another group member, and so on until each group member takes a turn borrowing and repaying the pool of savings.

microfinance institutions (MFIs)—namely investing (savings), lending (credit services), and insurance (risk management)—are all well-established topics of mainstream finance research.

The purpose of this paper, therefore, is to introduce microfinance to the academic finance community and to provide an outline for future research. Toward these goals, we provide a synthesized review of over 350 critically-reviewed articles that address at least one component of microfinance.[2] With a few exceptions, we focus on peer-reviewed articles, because we judge these to be of most interest to the academic finance community.[3]

Table I provides a list of peer-reviewed journals that have published at least one article on microfinance. The journal with the most articles in Table I is *Small Enterprise Development Journal (SED)*, which has published 102 articles on microfinance since its inception in 1990. This is followed in order by *The Journal of Microfinance*, (*JMF*) with 57 articles since its initial issue in the Fall of 1999, *World Development* (*WD*) with 25 articles, *The Journal of Developmental Entrepreneurship* (*JDE*) with 23 articles, and the *Journal of International Development* (*JID*) with 21 articles. *SED*, *JMF*, and *JDE* focus exclusively or predominantly on microfinance or the closely related topic of micro and small enterprise development, while *WD* and *JID* are multi-disciplinary journals addressing topics of broad interested to international development.

Sixty-four percent of the articles reviewed for this study (228/357) have appeared in one of the above five journals. The remaining 36 percent are dispersed among 78 other journals, 56 of which have published a single article on microfinance. The genre of these other journals includes economics, international development, public policy, public administration, law, statistics, and organizational behavior, among others. Notably absent from Table I is any mainstream or entrepreneurial finance journal.

In order to present a coherent and succinct review of the broad microfinance literature, we divide our review into six areas of microfinance that, in our judgment, currently define the field. Within each area, we identify key topics, focusing on issues important to a finance audience, and we discuss the relevant peer-reviewed articles in each section. Accordingly, the remainder of the article proceeds as follows. In Section I, we address institutional sustainability, or the notion that MFIs need to be financially self-sufficient (free of subsidies) for optimal results. Section II discusses products and services offered by MFIs, and Section III addresses so-called "best practice" pertaining to MFI management and development. In Sections IV and V, respectively, we address client targeting and microfinance policy and regulation. Section VI discusses issues related to assessing the social impact of microfinance and Section VII concludes.

I. The Self-Sufficiency and Sustainability of MFIs

Unlike formal sector financial institutions, the large majority of MFIs are not "sustainable," where sustainability is equated in microfinance literature and parlance with financial self-sufficiency.[4] Instead, most MFIs are able to operate without covering their costs due to subsidies and gifts from governments and other donors. Notwithstanding, the

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[2] Although we reviewed 357 articles for this study, we do not cite all of them in the paper. An annotated bibliography of all 357 articles is available upon request from the authors.

[3] There exists a large body of non-critically-reviewed microfinance literature. The quality of this literature runs the gamut, although it does include a significant number of high quality and highly informative essays and studies.

[4] Morduch (2000) reports a rough estimate that only 1 percent of MFIs are currently financially self-sustainable and that no more than 5 percent ever would be.

microfinance industry is dominated by an *institutionist* paradigm (Morduch (2000), Woller et al. (1999a)) asserting that an MFI should be able to cover its operating and financing costs with program revenues. The conceptual foundations of the institutionist paradigm stem to a large degree from the work of researchers at the Ohio State University's Rural Finance Program. Their analysis of the failed rural credit agencies established by several LDC governments during the 1960s and 1970s diagnosed the primary cause of failure to be the "lack of institutional viability" (Gonzalez-Vega (1994)). This diagnoses led logically to two principal conclusions: (1) institutional sustainability was key to successful provision of financial services to the poor and (2) financial self-sufficiency was a necessary condition for institutional sustainability.[5] The institutionist argument is consistent with Hollis and Sweetman (1998a) who discuss six historical cases in an attempt to identify the institutional designs that facilitated success and sustainability for 19th century loan funds in the UK, Germany, and Italy. The authors conclude that subsidized loan funds were more fragile and lost focus more quickly than those that obtained funds from depositors.

In contrast, *Welfarists* take odds with institutionists over the issue of sustainability. Welfarists argue that MFIs can achieve sustainability without achieving financial self-sufficiency (Morduch (2000), Woller et al. (1999a)). They argue that donations serve as a form of equity, and as such, the donors can be viewed as social investors. Unlike private investors who purchase equity in a publicly traded firm, social investors do not expect to earn monetary returns. Instead, these donor-investors realize a social, or *intrinsic*, return. Social investors can be compared to equity investors who invest in socially responsible funds, even if the expected risk-adjusted return of the socially responsible fund is below that of an index fund. These socially responsible fund investors are willing to accept a lower expected financial return because they also receive the intrinsic return of not investing in firms that they find offensive. Microfinance social investors take this notion to the limit, generally earning zero financial returns and relying totally upon intrinsic returns.

Welfarists tend to emphasize poverty alleviation, place relatively greater weight on depth of outreach relative to breath of outreach, and gauge institutional success more so according to social metrics.[6] This is not to say that neither breadth of outreach nor financial metrics matter. Welfarists feel these issues are important, but they are less willing than institutionists to sacrifice depth of outreach to achieve them. Welfarists envision an industry characterized by a plurality of institutional types—including both profit-seeking and social-mission entities—targeting different markets, with different combinations of market and non-market funding, and with different levels of commitment to social versus financial return.

Morduch (2000) refers to the debate between institutionists and welfarists as the "microfinance schism." Driving the schism are competing perceptions of the implications for financial self-sufficiency on depth of outreach. General consensus holds that there exists a tradeoff between financial self-sufficiency and depth of outreach (e.g., von Pischke (1996)). But masked by this consensus is much disagreement about the nature, extent, and implications of this tradeoff. Nonetheless, what little evidence exists suggests that those MFIs that have achieved true financial self-sufficiency have also tended to loan to borrowers who were either slightly

[5] Additionally, Bennett and Cuevas (1996) argue for the need of building sustainable financial systems for the poor from three perspectives: a) financial sector development, b) enterprise formation and growth, and c) poverty reduction.

[6] Depth of outreach here refers to servicing the very poorest of clients, whereas breadth refers to servicing large numbers of clients, even if they are only marginally poor or non-poor.

above or slightly below the poverty line in their respective countries (Navajas et al., (2000)). These MFIs are able to capture economies of scale by extending larger loans to the marginally poor or non-poor. Although still an open question, this limited evidence leads many to conclude that if financial self-sufficiency is desired, then the very poor will not be reached by MFI services. That is, the MFI will not be able to achieve enough depth to reach those who need credit the most desperately.

An important area of financial research that has yet to be rigorously explored but which has significant potential to inform the debate mentioned above is the feasibility of introducing microfinance into the world capital markets. With the high repayment rates of many MFIs (e.g., upper 90 percent in many cases), there exists the potential to tap MFIs into world capital markets through instruments such as commercial banks loans, commercial paper, bond financing, equity financing, or through the bundling and securitization of MFI loans. Determining avenues to permit investment in MFIs via capital markets is an area of research that seems tailored to the tools and theory of finance academics.

In practice, there are currently several ongoing attempts to tap capital market investors for MFI funding. The ACCION Gateway Fund makes equity, quasi-equity, and debt investments in MFIs with a proven track record of financial sustainability. The AfriCap Microfinance Fund makes equity investments in African-based MFIs, as well as financing technical assistance for said MFIs. Blue Orchard Finance promotes private investments in microfinance by identification and analysis of MFIs and investment monitoring and reporting of its funds. Using a venture capital approach, ProFund International is an investment fund that attempts to earn a competitive return for its shareholders while facilitating MFI growth. Finally, the Community Reinvestment Fund provides a secondary market for microfinance loans by securitizing the microloans and collateralizing bonds that are sold to private investors.[7] If capital markets can be tapped to give MFIs the needed funds to be self-sufficient, and if investors can earn returns commensurate with the risk borne, the vision of a poverty-alleviation mechanism that pays for itself (both implicit and explicit costs) may be realized in greater proportions.

Issues surrounding MFI sustainability and self-sufficiency, and the implications/tradeoffs implied therein seem well-suited for finance researchers. Few rigorous studies have been conducted in a financial institutions framework to develop and test theory pertaining to MFI self-sufficiency. Some evidence does exist however, that MFIs have historically been very resilient and sustainable. Hollis and Sweetman (2001) discuss the microloan funds in 18th and 19th century Ireland. They report that Irish loan funds thrived for over 100 years due to their ability to change rapidly to external conditions, at one point providing financial services for 20% of Ireland's population. It took a combination of formal bank lobbying that resulted in anti-MFI legislation and the Irish potato famine to cause the demise of these early loan funds. Patten et al. (2001) provide a more recent historical example of the resilience of MFIs and their clientele. They compare the performance of the Indonesian MFI Bank Rakyat Indonesia (BRI) to formal Indonesian banks during the East Asian financial crisis. They find that BRI performed superior to the formal banking sector when comparing both loan repayment rates and savings rates of members. Having discussed MFI self-sufficiency and sustainability, we now turn our attention to the products and services offered within the current microfinance framework.

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[7] The bulk of the information in this paragraph is drawn from an ACCION website at URL: http://www.accion.org/technical_assistance/micro_links2.asp_Q_K_E_2.

II. Microfinance Institution Products and Services

MFIs provide similar products and services to their customers as formal sector financial institutions. The scale and method of delivery differ, but the fundamental services of savings, loans, and insurance are the same. Notwithstanding, to date most efforts to formalize microfinance have focused on enterprise lending (loans for enterprise formation and development) which remain by far today the dominant product offered by MFIs (Nourse (2001), Woller (2002a)). This, however, has slowly begun to change. Increasingly today MFIs have begun to offer additional products, such as savings, consumption or emergency loans, insurance, and business education. Nourse (2001) reviews the context and rise of microfinance products and argues there is a need for savings and insurance services for the poor and not just credit products. He goes on to argue that MFIs need to provide tailored lending services for the poor instead of rigid loan products. Supporting this latter assertion of Nourse (2001), Eyiah (2001) develops a model of small construction management contractors and MFIs in developing countries that provides a tailored lending structure for microenterprise contractors. Similarly, Woller (2002a), Cohen (2002), and Dunn (2002) argue that MFIs need to be more client-focused, including offering a mix of financial products tailored to the varied needs and wants of poor consumers.

Microcredit is most often extended without traditional collateral. If physical collateral were a requirement for borrowing, most MFI clientele would be unable to participate due to their extreme poverty level. Because borrowers do not have physical capital, MFIs focus on using social collateral, via group lending. Group lending encompasses a variety of methodologies, but all are based on the principal of joint liability. In essence, the group takes over the underwriting, monitoring, and enforcement of loan contracts from the lending institution (Wenner (1995)). Under joint liability each group member is made responsible for the loans of other group members. If one member defaults, the other group members are required to cover the loan from their own resources, and if they do not, they lose access to future loans. It is thus in each member's interest to ensure that the other members pay.

Social collateral also works through reputational effects on group members in which repayment of loans is seen by group members as necessary to maintain their social standing in the community (Woolcock (2001)). Goldmark (2001) suggests methods that may help build social collateral, thereby making loans even more secure. Van Tassel (1999) constructs a model and one-period game to determine the optimal group lending contract under asymmetric information. He concludes that agents will always form groups with agents of the same type and that agents' types can be distinguished according to the rate at which they are willing to trade increased joint liability commitments for lower interest rates. Ghatak (1999) concludes that group lending not only increases repayment rates and welfare via social collateral, but also due to peer selection by members of the lending group. Similar to Ghatak, Islam (1995) concludes that lenders using peer-monitoring systems can charge lower rates relative to conventional lenders and that at the same interest rate, the expected rate of repayment is higher with lower risk when using peer monitoring.[8]

Within the lending function of microfinance, it is useful to divide loans into enterprise loans and consumption/emergency loans. As mentioned above, the loan programs typical of MFIs almost entirely consist of enterprise loans. Nonetheless, significant unfulfilled market

[8] Although social collateral is widely used, it is not universally accepted by all as the optimal approach. For example, Mustafa (1994) concludes that alternate forms of institutional arrangements may be better than credit cooperatives in alleviating poverty.

demand also exists for consumption and emergency loans (Woller (2002a)). The demand for consumption/emergency loans is evident in developing countries by the thriving business of the local moneylenders. Although stereotyped as a loan shark preying on the desperation of the poor by charging exorbitant interest rates and employing unsavory collection methods, the traditional moneylender provides a valuable service for poor people who require quick and flexible infusions of cash to meet immediate and pressing consumption needs or to cope with emergencies. Like savings, consumption/emergency loans form an integral component of poor households' risk management and coping strategies.

Those in the microfinance industry who assumed that formal MFIs would drive the traditional money lenders out of business have been shocked to learn that the demand for moneylenders has remained robust, even among clients of microfinance programs. A good illustration is the case described by Perry (2002), in which women moneylenders in Senegal used loans from a local MFI to finance their own money lending businesses. It turns out that just as the terms of the loans offered by moneylenders (rapid loan approval, flexible terms, repayment periods measured in days or weeks, and lump-sum payments at exorbitant interest rates) makes them generally ill-suited as a source of enterprise financing, the terms of enterprise loans offered by MFIs (slow turnaround, inflexible terms, repayment periods measured in months or a year, and regular small payments at relatively low interest rates) are generally ill-suited for emergency/consumption purposes.

An important source of consumption/emergency loans in developing countries are pawn shops. Ismail and Ahmad (1997), for example, discuss the role of pawnshop lending in Malaysia. They report that Malaysian pawnshops have increased in importance as lending institutions and are projected to continue to do so due to more affordable transportation, interest rate regulations, and financial liberation, among other factors.

Along with the lending function, a market for savings exists in poor areas around the world. Savings services offered by MFIs can be divided into forced and voluntary savings, with forced savings far exceeding voluntary savings. In a forced savings program, microfinance participants are required to save a minimum amount each week (or other set period of time). Forced savings ostensibly teaches financial discipline and provides the MFI with additional information about clients. In practice, forced savings serve primarily as a form of cash collateral. Rules regulating when and how clients may withdraw forced savings are typically highly restrictive.

The second form of savings is voluntary, flexible savings (Nourse (2001), Montgomery (1996)). Millions from all strata of poor do not operate enterprises, but they do save, albeit often in very small amounts and at inconsistent intervals (Beverly and Sherraden (1999)). Savings are integral to poor households' risk management strategies; they constitute the first line of defense to help poor households cope with the external shocks, emergencies, and life-cycle events to which they are so vulnerable; and they play a crucial role in allowing the poor to take advantage of productive investment opportunities (Grosh and Somolekae, (1996)).[9]

A reasonable estimate of the market for savings among the poor indicates that savings demand substantially exceeds the demand for enterprise loans. Christen (2001), for example, reports that over a space of two to three years, retail banks in Latin America opened millions of

[9] An entire issue (Volume 12, Number 3, 2001) of *Small Enterprise Development* is dedicated to the issue of microsavings. Topics include the mobilization of various sized savings, the introduction of savings services into an existing MFI, the relative risk to the savings of the poor, the need for flexibility in microsavings instruments, and the tailoring of savings vehicles.

small deposit accounts in countries in which MFIs added fewer than 200,000 loan customers over the same period. At MFIs that offer both enterprise loans and voluntary savings, moreover, savers typically exceed borrowers by large multiples.

Characteristic of poor households is extreme vulnerability to risk and external shocks. Traditionally, poor households have managed risk and coped with external shocks through a combination of informal social support networks, savings, and borrowing from informal moneylenders. Participation in microfinance programs offers another set of risk management and coping options for poor households. Participation in formal microinsurance schemes offers yet another option. Just as a large demand for formal savings and loans exist among the poor, there is also believed to exist a large demand for formal insurance (Churchill (2002)).

Although microinsurance is in the early stages of development, efforts are being made to formalize and design the process. There are some success stories (e.g., FINCA Uganda offers its clients health and other types of insurance through an AIG subsidiary based in South Africa), but overall progress is modest so far owing in part to the very different nature of insurance compared to savings or loans and to the fact that few MFIs possess specialized knowledge of how to set up or run insurance programs.[10] In another example of microinsurance research, Mishra (1994) analyzes crop insurance in Gujarat and finds that the availability of crop insurance resulted in increased loan repayments in absolute terms, although it is not clear if the propensity to repay improved. Additionally, Mishra documents a significant increase in the flow of credit to insured farmers after the introduction of the insurance program.

Our overview of issues related to microfinance products and services would not be complete without brief discussion of integrative approaches—integrating non-financial services (usually education) with financial services—to microfinance. A handful of articles have examined integration of microfinance with other development services. Smith (2002) compares minimalist MFI services in Ecuador and Honduras to those offering financial services integrated with health education. Using surveys of 963 Ecuadorian clients and 981 Honduran clients, he finds that clients in integrated programs experienced improved family health, while those in minimalist programs did not. Using 20 minimalist MFIs and 84 banks that offered health education, Smith finds no significant difference in the performance of the MFIs. Also in support of an integrative approach, Edgcomb (2002), Cook et al. (2001), and Dumas (2001) each use case methodology to analyze MFIs offering integrated business development training. They conclude that business development training significantly improves microenterprise performance and microentrepreneur empowerment.

A final issue meriting mention is provision of equity in lieu of credit for enterprise formation and start-up capital. Pretes and Seibel (2002) discuss several cases of this practice in East Africa. They refer to this service as providing enterprise *equity*; however, in finance vernacular, this service would most likely be considered a grant. They argue that those who invest (donate) the equity in such cases receive their returns intrinsically, as they do not receive a financial ownership position in the startup firm (microenterprise).

The discussion in this section has demonstrated that at the core, the issues challenging microfinance institutions and formal sector institutions are very similar. The commonalities between both sectors encourages us that mainstream finance tools can be applied to microfinance. At the same time, the unique characteristics of microfinance, provide an

[10] Volume 12, Number 1, 2001 issue of *Small Enterprise Development* is dedicated to the topic of microinsurance. Articles highlight the risks and opportunities of microinsurance in general, healthcare microinsurance, funeral microinsurance, agricultural microinsurance, and client selection by MFIs.

interesting laboratory to test existing financial theory and to create new theory. Having addressed microfinance products and services, we now turn our attention to the management of microfinance institutions.

III. Best Practices in Microfinance Institution Management

In this section, we discuss the notion of best practice for microfinance institutions.[11] When we use the term *best* practice, we use it in a general framework, realizing, as Dunford (2000) argues, that best practices vary and change constantly as the microfinance fields matures. Due to the nature of MFI clientele and the disparate environments in which MFIs operate, best practices must be adaptable to the specific area in which the institution operates. Bhatt and Tang (2001c) discuss MFI vehicles, technologies, and performance assessments and conclude that the future success of microfinance will depend on MFI design tailored to specific clients. Bhatt and Tang's assertion highlights the importance of research to develop sound practices of MFI design and management.

The primary topics covered within the extant MFI best practice literature include the determination of an optimal interest-rate to charge borrowers, whether to lend to groups or to individuals, commercialization of MFIs, aspects of loan size and growth, credit scoring, and lending relationships with customers. Whereas the setting of interest rates in a for-profit financial institution is determined by the rate that will maximize shareholder wealth, MFIs face unique issues in setting an appropriate rate. If MFIs charge rates too high, they may hinder their ability to help the poor pull themselves out of poverty as well as price very poor persons out of the market for loans. Excessive interest rates may also lead to MFI losses as borrowers cannot pay, default on loans, and, in the case of group lending, bog down their solidarity groups. On the other hand, due to the small principal amounts inherent with microcredit, little economies of scale exist in the lending process to cover fixed costs. MFIs, moreover, operate with very high administrative costs per dollar lent relative to formal financial institutions. Thus, to achieve financial self-sufficiency, MFIs have to charge relatively high interest rates.

Conning (1999) constructs a theoretical model of the contract design problem facing MFIs that want to maximize impact, target the poor, and achieve financial self-sufficiency. Using data from 72 MFIs, Conning finds that sustainable MFIs that target poorer borrowers must charge higher interest rates, have higher staff costs, and are less leveraged than those targeting less poor borrowers. In contrast, Hollis and Sweetman (1998b) analyze mid-19th century Irish loan funds and find that MFIs were able to lend to the poor at competitive interest rates without subsidies. These Irish MFIs combated informational and enforcement problems while operating at a surplus in a market that formal sector banks would not serve. Indirect evidence that the poor may not mind paying high interest rates can be drawn from Perry (2002) where MFI clients borrow funds to become moneylenders, presumably successfully lending at rates higher than their MFI charges. The poor who cannot obtain MFI membership are thus willing to pay rates higher than that charged by the MFI. Robinson (1996) also argues that interest rates charged to microfinance borrowers should cover all costs and that the working poor can afford these rates which are relatively low compared to their alternatives. Finally, Fafchamps (1997) uses simulation methodology to show that interest rate subsidizations have little impact on whether poor in India invest in non-divisible and irreversible profitable projects.

[11] Note that in microfinance jargon, *best practice* ostensibly implies exemplary institutional practices. In usage, however, it is more or less synonymous with practices that promote financial self-sufficiency. Only rarely is the term used to refer to practices that promote achievement of social objectives.

Another main issue explored in detail in the existing MFI best practice literature is the choice between offering group loans or individual loans. As discussed in Section II, MFIs often rely on social collateral within loan groups to secure their loans (Woolcock (2001)). Gomez and Santor (2001) provide empirical evidence of the importance of social collateral. In an empirical study of 612 group borrowers and 52 individual borrowers in Canada, they report that group lending and the presence of neighbors have a positive correlation with self-employment earnings. It follows that borrowers with higher earnings will have an easier time of servicing their microloans.

Woolcock (1999) also addresses the issue of group-lending design. Analyzing five cases of MFI failures in Ireland, Bangladesh, and India, he concludes that group performance depends on MFI lending policies, cost structures, nature and extent of social relations among group members, and MFI staff. Bhatt and Tang (2001a) go on to discuss group lending under the frameworks of incomplete information theory and transactions cost theory. Based on their analysis, they offer recommendations for setting-up and managing an MFI.

Although group loans make up the bulk of microloans worldwide, individual lending is significant in some areas and is growing in popularity. Armendariz de Aghion and Morduch (2000) consider microfinance beyond group lending in Eastern Europe, Russia, and China. They describe the mechanisms that allow MFIs to successfully penetrate new segments of credit markets. These features include direct monitoring, regular repayment schedules, and the use of non-refinancing threats.

We turn next to the importance of sound MFI management practices. Milgram (2001) presents the case of an MFI in the Philippines that attempted to become self-sufficient too quickly, resulting in targeting not-so-poor who already owned operating businesses. She argues that the MFI's rush to self-sufficiency forced it to be at odds with its original mission of targeting the very poor and facilitating the creation of microenterprises. Bhatt and Tang (2001b, 2002) focus on social, financial, and administrative intermediation on the determinants of repayment rates in US microenterprise programs. Tucker (2001) addresses financial performance benchmarking of MFIs. Finally, Park and Ren (2001) empirically contrast the implementation of microfinance services provided by non-government MFIs versus the Chinese government. Their tests indicate that microfinance NGOs have positive results in targeting, sustainability, and impact, whereas government programs do not. The data supports the notion that efficient MFI management contributes significantly to accomplishing microfinance objectives.

In articles that address more specific areas of loan structure, Schreiner (2001) and Painter and MkNelly (1999) analyze factors that drive loan size and loan growth respectively. Schreiner identifies seven aspects of loan size and how they impact MFI depth of reach and profitability. Painter and MkNelly identify factors that drive loan growth and show that these factors vary across loan cycles.

Churchill (2000), Schreiner (2000), and Norell (2001) all address attempts to incorporate existing banking practices into MFIs. Churchill discusses the impact of customer loyalty, similar to the relationship lending literature in mainline finance (e.g., Petersen and Rajan (1994), Berger and Udell (1995), and Cole (1998)) and concludes that customer loyalty is key to MFI success. Schreiner discusses the role of credit scoring in MFIs and argues that scoring can add value to the MFI process. Norell discusses techniques that MFIs can use to reduce arrears, which include following-up quickly on loans in arrears, forming strong solidarity groups, updating and enforcing credit policies, and concentrating on the scope of lending. Finally, Woller (2002b) reviews the costs and benefits of MFI commercialization and its impact on mission drift. He concludes that the benefits of commercialization outweigh the costs, but recommends that MFIs remain poverty alleviation focused.

IV. Client Targeting

In the preceding section, we address management practices for MFIs. A major extension of this preceding section, worthy of its own section, is that of client targeting. There are two primary issues in client targeting: first,, gender targeting (lending to women versus lending to men) and second, poverty targeting (lending to the very poor and poor versus lending to the marginally poor and non-poor).

A. Gender Targeting

Many MFIs target primarily, or exclusively, women. This practice is based on the common belief that women invest the loans in productive activities or in improving family welfare more often than men, who are assumed to consume rather than invest loan funds. Pitt and Khandker (1998) use empirical data from Bangladesh over the period of 1991-1992 to test the hypothesis that women use borrowed funds more efficiently than men. They use household expenditures, nonland assets held by women, male and female labor supply, and boys' and girls' schooling as measurement outcomes. The authors find that although the availability of microfinance positively impacts all six areas in the aggregate, all areas are significantly affected when women borrow, but only one of the six is significantly affected when men borrow. They conclude that women use borrowed funds better than men in Bangladesh microfinance programs.

Examining a related question, Kevane and Wydick (2001) use a sample of 342 MFI participants in Guatemala to analyze the assertion that male borrowers produce more economic growth than women and that women facilitate more poverty alleviation. They find no significant differences between men and women in generating business sales and a small advantage of employment generation by men relative to women. They attribute the difference between men and women to the role of women in childbearing.

Underlying the emphasis on lending to women is the widespread belief that access to financial services *empowers* women, both financially and socially.[12] Testing this belief, Amin et al. (1998) use qualitative and quantitative evidence in Bangladesh to show that membership in microfinance programs among other factors is positively related to women's empowerment. In contrast, Ehlers and Main (1998) analyze microenterprise development programs for poor US women and argue that the microfinance assistance is more detrimental and problematic than advocates believe. Ehlers and Main base their conclusion on the fact that few women "graduate" their business into the formal sector due to gender constraints on the type of businesses they choose to run and due to inappropriate microfinance training.

As a final set of examples, Mallick (2002) criticizes the impact of microfinance on women in society and suggests that microfinance services can result in gender conflict in Bangladesh. Hossain (2002) is quick to rebut Mallick and specifically addresses each of Mallick's assertions arguing that Mallick's analysis is premature.

B. Very-Poor versus Marginally-Poor Targeting

[12] Women's empowerment is a critical issue in the developing world context in which women routinely live at the margins of society being denied basic human rights, individual dignity, economic and educational opportunities, and social/political voice by male-dominated social norms both within society at large and within their own households.

As mentioned earlier, one of the most significant and controversial debates in microfinance is whether and to what extent there exists a trade-off between financial self-sufficiency and depth of outreach. Integral to this debate is whether to achieve self-sufficiency MFIs must target marginally-poor or non-poor clientele so as to capture economies of scale and cover costs.[13] Addressing this issue, Navajas et al. (2000) analyze the outreach of five Bolivian MFIs. The authors find that most clients were near the poverty line (i.e., the marginally poor). They also find that group lenders had more depth of outreach than individual lenders, that urban poorest were more likely borrowers, but that rural borrowers were among the poorest of all borrowers. Similarly, Servon (1997) studies three MFIs in the US and finds that they served those at the margin of the mainstream economy, not the very poor.[14]

The last three articles in this section address who participates, and who does not participate, in microfinance programs and whether microentrepreneurs are subject to credit rationing. Evans (1999) conducts an empirical examination of microfinance clients in Bangladesh. He reports that only 25% of eligible households participate and that rates of participation are higher among the poorer. Multivariate analysis indicates that lack of female education, small household size, and landlessness are risk factors for nonparticipation. Baydas et al. (1994a, 1994b) analyze credit rationing in Ecuador by MFIs. In one study (1994a), they construct and estimate a supply and demand model to analyze factors MFIs use to ration credit and find that microentrepreneurs with less profitable enterprises and less education have smaller demand for microcredit. In another study (1994b), they test for evidence of discrimination against women microentrepreneurs by formal sector lenders in Ecuador. They find that men and women have equally small probabilities of being quantity rationed for loans and conclude that gender discrimination is not widely practiced in Ecuador.

V. Policy and Microfinance

Having addressed targeting of clientele in the preceding section, we now address the key policy issues of microfinance. We use the term “policy” to refer to microfinance as a poverty alleviation strategy and to the regulatory conditions in which MFIs operate.

A. Microfinance as a Poverty Alleviation Policy

Perhaps the fundamental question for the motivational underpinnings of microfinance is whether it is a viable strategy for poverty alleviation relative to other poverty alleviation policies. Adams and von Pischke (1992) try to answer this question directly by comparing modern (1990 era) MFIs to the failed rural credit agencies established by LDC governments in the 1960s and 1970s that not only did nothing to advance poverty alleviation but also wasted millions of dollars of public funding. After comparing the operational framework of modern MFIs to rural credit agencies, the authors conclude that the modern MFI industry is destined for failure because of the similarities between the two.

[13] The issue of targeting has taken on more importance, as the U.S. Congress recently amended the Microenterprise for Self-Reliance Act to ensure that at least fifty percent of all the microenterprise resources it grants shall be targeted to the very poor. The very poor are defined either as those living in the bottom fifty percent below the “official” national poverty line or those living on the equivalent of less than $1 per day adjusted for purchasing power parities.

[14] Also relevant to the targeting discussion is the topic of cross-subsidization, defined as subsidizing loans to the very poor with income earned serving the marginally poor or non-poor. We know of no academic articles, however, that attempt to analyze the cross-subsidization strategy.

In partial support of Adams and von Pischke, Buckley (1997) "[s]eeks to provoke critical reflection on the uncritical enthusiasm that lies behind much proselytizing of microfinance." Buckley discusses field summary data from Kenya, Malawi, and Ghana and concludes that fundamental structural changes in socioeconomic conditions and a deeper understanding of informal sector behavior are needed for microfinance to prove effective.

Schreiner (1999), Sanders (2002), and Bhatt (1999) provide support for the argument that microfinance may not be an effective poverty alleviation policy in the US. Schreiner analyzes US microenterprise programs and finds that although some programs can move some people from welfare to self-employment, it only works one percent of the time. Additionally, Schreiner shows that those who are successful in the transition have above average assets, education, experiences, and skills. Sanders tests the impact of microenterprise development programs and calls into question their effectiveness as an antipoverty strategy. Meanwhile Bhatt (1999) finds that the evidence for the impact of U.S. microenterprise programs is mixed -- some programs have worked while others have failed. Finally, Schreiner and Woller (2003) compare evidence about the effectiveness of microenterprise programs in developing countries and the US. They conclude that microenterprise development is much more difficult in the US than in developing countries, and they suggest some ways to address the challenges of US microenterprise development.

In contrast to the arguments of Adams and von Pischke, Woller et al. (1999a) argue that the current microfinance movement is very different from the failed rural credit agencies of the 1960s and 1970s, thereby making direct comparisons between the two invalid. They list several reasons why the prospects for success are better today than before. Additionally, Woller and Woodworth (2001) argue that to date, top-down macroeconomic poverty alleviation and development policies also have likewise experienced significant failures. Consequently, they argue that microfinance constitutes a potentially viable bottom-up policy option in lieu of or, preferably, as a complement to effective macroeconomic poverty alleviation and development policies. In support of Woller and Woodworth, Weijland (1999) analyzes a sample of over 4,000 Indonesian rural clusters and concludes that hyper-poor but clustered groups can serve as a seedbed for industrial development.

Other studies reach more ambiguous conclusions about the effectiveness of microfinance as a policy tool. Analyzing MFIs in Nepal, Bhatta (2001) concludes that due to the topology and extreme poverty levels in Nepal, it will be difficult for MFIs to have any meaningful impact on poverty. Nonetheless, he goes on to suggest that MFIs should expand into the hill and mountainous areas and target women so as to increase the probability of success. Finally, Snow and Buss (2001) study microfinance programs in sub-Saharan Africa and conclude that better goal-oriented assessment is needed to determine if microfinance is an effective policy for poverty alleviation.

B. Regulatory and Macroeconomic Policy Impacts on MFIs

Franks (2000) discusses macroeconomic stabilization and its impact on microenterprises. He concludes that macroeconomic stabilization can ultimately be very beneficial to the microfinance sector, although it may actually be costly in the short run. Quinones and Seibel (2000) examine the formation of social capital in the Philippine microfinance sector. They illustrate how regulatory and supervisory framework and financial innovations in MFIs have affected poor households' cooperation and support.

Tinker (2000) discusses disaggregation by social groups and microenterprise programs in the US. She then extrapolates lessons that a US planner could learn for optimal policy implications. Lowe and Talbot (2000) critique the British Small Business Service's efforts in spurring microfinance and microbusiness development. They specifically focus on how the Small Business Service can improve its policies to support provision for rural microbusinesses. Copisarow (2000) also analyzes key policy issues affecting microfinance in the UK and describes the main barriers faced by MFIs in the country. She goes on to recommend funding and operating strategies for microfinance programs operating within the current legal and regulatory UK framework.

As with most issues in microfinance, the effectiveness of microfinance as a policy tool for poverty alleviation and the optimal regulatory context for MFI development are still open questions. Researching these issues has the potential to be a rich area for discovery.

VI. Impact of Microfinance Institutions

Thus far, we have defined and reviewed the first five areas of microfinance. In this section, we discuss the final area of microfinance – attempts to assess the impact of microfinance as measured by their impact on clients, their enterprises, households, and the communities in which they live. As a general rule, MFIs work toward a double bottom-line—financial *and* social—unlike the typical formal financial institution which works solely toward a financial bottom-line. Measuring financial returns is relatively straight-forward. Microfinance has borrowed liberally from the financial accounting and performance standards in the formal financial sector. Concepts such as return on equity, return on assets, portfolio-at-risk, and so forth are increasingly becoming the lingua franca of the microfinance industry.[15] Measuring social return, however, is anything but straightforward. In practice, the specific impacts of microfinance are hard to pin down and harder still to measure. Impact assessments require adoption of research methodologies capable of isolating specific effects out of a complicated web of causal and mediating factors and high decibels of random environmental noise, as well as attaching specific units of measurement to tangible and intangible impacts that may or may not lend themselves to precise definition or measurement.

The difficulty and cost inherent in assessing social impact are such that most MFIs do not try to assess social impact; nonetheless, donors and policymakers have a legitimate interest in assessing the social returns to their social investments. Some knowledge of social impact is therefore necessary for MFI management and other stakeholders (e.g., donors and policymakers) to assess overall program effectiveness. (Information on financial performance alone gives an incomplete picture of program performance.)

Interest in the social impact of microfinance has led to a number of impact studies published in scholarly journals.[16] Ten of these studies assess microfinance programs in Bangladesh. [17] McKernan (1996) finds that program participation can exert a large positive

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[15] Use of standard accounting measures of institutional performance in microfinance frequently requires adjustment to reflect financial subsidies (e.g., cash donations, in-kind donations, or other types of below-market financing) received by MFIs. Thus the common use of the concept "Financial Self-Sufficiency", which adjusts institutional profitability for the imputed market cost of subsidized financing, in lieu of profitability.

[16] Woller (2003) reviews 88 published impact studies, both peer-reviewed and non peer-reviewed.

[17] Nine of the ten studies in Bangladesh assessed the Grameen Bank and the Bangladesh Rural Action Committee (BRAC), in addition at times to other Bangladeshi MFIs. The Grameen Bank and BRAC are two of the largest MFIs in the world with borrowers and loan portfolios totaling 2,378,601 and US$192,600,000 (year end 2001) at the Grameen Bank and 2,900,000 and US$159,500,000 (year end 2002) at BRAC.

impact on self-employment profits, while Pitt and Khandker (1998) find that program credit has a significant impact on the well-being of poor households and that this impact is greater when credit is targeted to women. Seven other studies in Bangladesh (Hashemi et al. (1996); Goetz and Gupta (1996); Schuler and Hashemi (1994); Hashemi and Riley (1996); Schuler et al. (1997); Schuler et al. (1998); Steele et al. (2001)) focus on the question of female empowerment. All but one find evidence that microfinance program participation exerts a statistically significant impact on one or more aspect of female empowerment, such as contraceptive usage or intra-household decision-making. The sole Bangladeshi impact study failing to find significant impacts is Goetz and Gupta who find that significant portions of the women's loans were controlled by male relatives, thereby limiting the women's ability to develop meaningful control over their investment activities.

Outside of Bangladesh, published studies have assessed the impact of microfinance programs in Bolivia (Mosley (2001)), China (Park and Ren (2001)), Ecuador (Woller and Parson (2002)), Ghana and South Africa (Afrane (2002)), Guatemala (Kevane and Wydick (2001); Wydick (1999a), (1999b), (2002)), Honduras and Ecuador (Smith (2002)), Indonesia (Bolnick and Nelson (1990)), Peru (Dunn (2001)), Thailand (Coleman (1999)), Uganda (Barnes et al. (1999)), Zambia (Copestake et al. (2001)), and in multiple countries (Mosely and Hulme (1998) and Anderson et al. (2002)). The findings vary considerably from study to study, suggesting that impacts are highly contextually specific.

Analyzing four programs in Bolivia, Mosley (2001) shows that assets and income increased commensurate with initial poverty levels, but also that MFI services may increase vulnerability if borrowers over-leverage. Bolnick and Nelson (1990) find that MFI participation had a positive impact on enterprises that were typically small, labor intensive and growing, although the impact was far from uniform across sectors and target variables. Copestake et al. (2001) find that borrowers who were able to obtain two loans experienced high growth in profits and household income compared to a control sample, but borrowers who never qualified for the second loan were actually worse off due to MFI collection mechanisms.

Wydick (1999a) finds that upward class structure mobility increases significantly with access to credit. Using the same Guatemala data set in a subsequent study (2002), Wydick also finds that rapid gains in job creation after initial credit access were followed by prolonged periods of stagnant job creation. Dunn (2001) finds that program clients' enterprises performed better than non-client enterprises in terms of profits, fixed assets, and employment. Finally, Anderson et al. (2002) analyze 147 MFIs and finds that microfinance participation increased environmental awareness and common pool resource stewardship.

Two published impact studies explicitly assessed community, or village-level, impacts. In Bangladesh, Khandker et al. (1998) find that program participation has positive impacts on household income, production, and employment, particularly in the rural non-farm sector, and that the growth in self-employment was achieved at the expense of wage employment, which implies an increase in rural wages. Woller and Parsons (2002) estimate that a microfinance program in Portoviejo, Ecuador contributes $480,000 per year in direct and induced economic benefits to the local economy.

Other impact studies address trade-offs that need to be considered when performing microfinance impact assessments. Mosely and Hulme (1998) study 13 MFIs in seven countries (Bolivia, Indonesia, Bangladesh, Sri Lanka, Kenya, India, and Malawi) and construct an "impact frontier" describing the inverse relationship they find between outreach (depth of poverty reached) and impact. Wydick (1999b) constructs a theoretical model to analyze the economic tradeoff between future returns to schooling and the current return to child labor in Guatemalan household enterprises. He finds that in some states, microcredit increases the probability that children will attend school; however, during certain states of moral hazard, the cost of schooling may outweigh the benefits of child labor. Kevane and Wydick (2001) find that targeting microenterprise credit to poor women appears to imply a trade-off between economic growth in favor of poverty reduction and child welfare. In particular, female entrepreneurs of child bearing age create significantly fewer jobs than male entrepreneurs.

Each of the impact assessment studies cited above, with one noted exception, provide evidence of positive impacts of microfinance. Other impact assessment studies, however, fail to find significant impacts. In his assessment of Thai MFIs, Coleman (1999) finds that "naive" estimates of impact failing to control for self-selection and endogenous (non-random) program placement significantly overestimate program impacts. He generalizes this finding to other impact assessments, arguing that most impact studies neglect the issues of self-selection and endogenous program placement thus leading to systematic overstatement of impact.

Making comparisons across impact studies is greatly complicated by the contextual heterogeneity of programs assessed and the diversity of empirical methodologies used. The diversity of empirical methodologies in turn reflects the diversity in methodological options available. Hulme (2000) reviews the methodological options for doing impact assessments identifying three broad approaches: the scientific method (principally control-group surveys), the humanities tradition (ethnography and other qualitative methods), and participatory learning and action (participatory qualitative tools that include, for example, participatory rural appraisal, rapid rural appraisal, and farming systems research). He concludes that an optimal impact assessment mechanism should be a mix of the different methods for a fit between assessment objectives, program context, human resources, and timing.

Hyman (1998) also consider the issue of optimal impact assessment methods by reviewing and comparing four MFI evaluation systems. Through his analysis, he suggests improved methods for existing assessment approaches. Woller et al. (1999b) survey 73 MFIs in the US and developing countries on their impact evaluation practices. They find that the sampled institutions regularly evaluated their programs, albeit using inexpensive and un-scientific methods, regularly monitored project performance, saw evaluations as vital, used findings to implement project changes, and sought formal feedback from clients. The survey findings also shed light on impediments to performing impact assessments on the role played by various stakeholders in the evaluation process.

In addition to Coleman (1999, cited above), other studies address the various methodological weaknesses found in published impact studies. Karlan (2001) criticizes the common practice of omitting ex-clients from treatment groups, arguing that such an omission introduces significant risk of selection bias and survivorship bias, potentially resulting in systematic and significant overstatement of program impacts. Schreiner (2002) criticizes impact assessments of U.S. microenterprise development programs for a variety of methodological failures, including failure to use valid control groups, biased sampling, misestimation of program benefits and costs, and failure to perform true cost-benefit analyses. (Many of these criticisms are true for assessments of microfinance programs in the developing world as well.)

VII. Concluding Remarks

The purpose of this article has been to introduce the finance academic community to the discipline of microfinance and microfinance institutions. We have discussed the issues of MFI sustainability, products and services, management practices, client targeting, regulation and policy, and impact assessment in a summary literature review. Our hope is that this article will help turn the attention of finance researchers to the important issues in microfinance. Many of the tools, models, and frameworks in the existing finance literature can be brought to bear on the problem of world poverty and have the potential to significantly move both the theory and practice of microfinance forward. Microfinance offers the finance discipline a possible avenue to make a significant difference in the lives of millions of poor people.

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Table I Frequency of Microfinance Articles in All Identified Journals

Journal Title	Number of articles	Percentage*
Small Enterprise Development	102	28.6%
Journal of Microfinance	57	16.0%
World Development	25	7.0%
Journal of Developmental Entrepreneurship	23	6.4%
Journal of International Development	21	5.9%
Journal of Development Economics	10	2.8%
The Journal of Development Studies	8	2.2%
Journal of Development Studies	6	1.7%
International Journal of Economic Development	5	1.4%
Policy Studies Journal	5	1.4%
Journal of Rural Development and Administration	4	1.1%
Journal of Socio – Economics	4	1.1%
The Social Service Review	3	0.8%
American Journal of Agricultural Economics	2	0.6%
Asia-Pacific Journal of Rural Development	2	0.6%
Bangladesh Journal of Political Economy	2	0.6%
Community Development Journal	2	0.6%
Demography	2	0.6%
Economic Development and Cultural Change	2	0.6%
Economic Development Quarterly	2	0.6%
Economics of Transition	2	0.6%
Human Organization	2	0.6%
Journal of Comparative Economics	2	0.6%
Journal of Rural Development	2	0.6%
New Perspectives Quarterly	2	0.6%
Quarterly Journal of Agricultural Economics	2	0.6%
South African Journal of Economics	2	0.6%
Agricultural Finance Review	1	0.3%
American Anthropologist	1	0.3%
Appropriate Technology	1	0.3%
Asia-Pacific Development Journal	1	0.3%
Cambridge Journal of Economics	1	0.3%
Development and Change	1	0.3%
Development in Practice	1	0.3%
Evaluation Review	1	0.3%
Explorations in Economic History	1	0.3%
Food and Nutrition	1	0.3%
Foreign Policy	1	0.3%
Gender & Society	1	0.3%
Harvard Business Review	1	0.3%
Harvard Journal of Law and Public Policy	1	0.3%
Indian Journal of Labour Economics	1	0.3%
International Journal of Public Administration	1	0.3%
International Journal of Social Work	1	0.3%

* Percentage represents the percentage of total articles which each particular journal comprises.

Table I Frequency of Microfinance Articles in All Identified Journals (continued)

Journal Title	Number of articles	Percentage*
International Journal of Social Economics	1	0.3%
International Journal of Urban and Regional Research	1	0.3%
International Planning Studies	1	0.3%
Journal of African Economics	1	0.3%
Journal of Business and Economic Statistics	1	0.3%
Journal of Developing Areas	1	0.3%
Journal of Economic Behavior & Organization	1	0.3%
Journal of Economic Development	1	0.3%
Journal of Economic Literature	1	0.3%
Journal of Economic Perspectives	1	0.3%
Journal of Education and Social Change	1	0.3%
Journal of Family Issues	1	0.3%
Journal of Human Resources	1	0.3%
Journal of Interamerican Studies and World Affairs	1	0.3%
Journal of International Trade and Economic Development	1	0.3%
Journal of Management Studies	1	0.3%
Journal of Policy Analysis and Management	1	0.3%
Journal of Political Economy	1	0.3%
Journal of Rehabilitation	1	0.3%
Journal of Small Business Management	1	0.3%
Journal of the American Planning Association	1	0.3%
Journal of the Society for International Development	1	0.3%
Journal of the Asian and Pacific Development Center	1	0.3%
Latin American Perspectives	1	0.3%
New Scientist	1	0.3%
Policy Sciences	1	0.3%
Quarterly Journal of International Agriculture	1	0.3%
Regional Studies	1	0.3%
S.A.M. Advanced Management Journal	1	0.3%
SAIS Review	1	0.3%
Scientific American	1	0.3%
Social Work	1	0.3%
Studies in Family Planning	1	0.3%
The American Journal of Economics and Sociology	1	0.3%
The Canadian Journal of Economics	1	0.3%
The Journal of Modern African Studies	1	0.3%
The Review of Economics and Statistics	1	0.3%
The Sociological Review	1	0.3%
Yale Human Rights and Development Law Journal	1	0.3%
TOTAL	357	100.0%

* Percentage represents the percentage of total articles which each particular journal comprises.