

**THE DEMAND FOR MICROFINANCIAL SERVICES
IN THE MICRO AND SMALL SCALE ENTERPRISE SECTOR IN
JORDAN**

Final Report

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	vi
I. INTRODUCTION	1
1. Purpose of the Study	1
2. Background on Jordan	2
3. Microfinance in Jordan	3
A. Microfinance Approaches	3
B. Microfinance Capacity in Jordan	5
II. CHARACTERISTICS OF THE MICRO AND SMALL SCALE ENTERPRISE SURVEY	6
1. Overview of The Survey	6
A. Characteristics of the Enterprises	7
B. Characteristics of the Entrepreneur	8
C. Size Variations	9
D. Sector Variations	10
E. Regional Differences	11
F. Gender Differences	12
2. Significance of the Existing Financial Channels	12
A. Investment Capital	12
B. Contractual Relations with Suppliers and Customers	13
a. Relations with Suppliers	13
b. Relations with Customers	15
C. The Effective Demand for Informal Loans	16
D. The Effective Demand for Formal Loans	17
E. Significance of the Current Sources of Financing the Business	18
F. Significance of the Existing Savings Channels	20
3. Potential Demand for Loans and other Financial Services	21
4. Problems and Constraints	22
5. Summary of the Demand for Loans	23

III.	CHARACTERISTICS OF THE POTENTIAL ENTERPRISE SURVEY	24
1.	Overview of The Survey	24
A.	Potential Entrepreneurship Capacity	24
B.	Characteristics of the Potential Enterprises	25
C.	Characteristics of the Potential Entrepreneurs	26
2.	Significance of the Alternative Financial Channels	26
A.	Potential Investment Capital	26
B.	The Effective Demand for Informal Loans	27
C.	The Effective Demand for Formal Loans	28
D.	Significance of the Existing Savings Channels	29
3.	Potential Demand for Loans and other Financial Services	30
4.	Problems and Constraints	32
5.	Summary of the Demand for Loans	32
IV.	DETERMINANTS OF THE DEMAND FOR FINANCIAL SERVICES AMONG MICRO AND SMALL SCALE ENTERPRISES IN JORDAN	33
1.	Determinants of the Effective Demand for Financial Services	33
A.	The Empirical Model	34
B.	Results and Discussion	36
C.	Lessons and Implications	38
2.	Determinants of Potential Demand for Formal Loans	39
A.	Potential Demand for Formal Individual Loans	39
B.	Potential Demand for Formal Group Loans	40
V.	DETERMINANTS OF THE DEMAND FOR FINANCIAL SERVICES AMONG POTENTIAL ENTREPRENEURS IN JORDAN	41
1.	Determinants of the Potential Demand for Formal Individual Loans	41
2.	Determinants of Potential Demand for Formal Group Loans	42
VI.	SUMMARY, LESSONS AND CONCLUSIONS	43
1.	Summary of the Enterprise Survey Results	44
2.	Summary of the Potential Entrepreneurs Survey Results	47
3.	Lessons and Conclusions	48
A.	Client Profile	48
B.	Financial Products	49

C.	The Size of Market Demand	51
4.	Implications	52

Appendices

A.	The Enterprise Survey Tables	54
B.	The Potential Entrepreneur Survey Tables	81
C.	Definitions of the Econometric Models and Results	94
D.	Bibliography	103
E.	Scope of Work	105
F.	Questionnaires	109

LIST OF TABLES

Table 1.	Employment Profile of the Businesses by Size.	9
Table 2.	Sources of Investment Capital by Size.	13
Table 3.	Form of Payment to Suppliers by Size.	14
Table 4.	Form of Payment to Suppliers by Sector	14
Table 5.	Supplier Credit Characteristics by Size.	15
Table 6.	Form of Sales to Clients by Size	15
Table 7.	Demand for Informal Loans by Size, Sector, Location and Gender	16
Table 8.	Demand for Formal Loans by Size, Sector, Location and Gender	18
Table 9.	Demand for Savings Services by Size, Sector, Location and Gender	20
Table 10.	Potential Demand for Financial Services by Size, Sector, Location and Gender	22
Table 11.	Terms and Conditions of the Effective and Potential Loan Demand by Entrepreneurs	23
Table 12.	Potential Entrepreneurship Capacity by Location	25
Table 13.	Potential Sources of Investment Capital by Sector, Location and Gender	27
Table 14.	Demand for Informal Loans by Sector, Location and Gender	27
Table 15.	Demand for Formal Loans by Sector, Location and Gender	29
Table 16.	Demand for Savings Services by Sector, Location and Gender	30
Table 17.	Potential Demand for Financial Services by Sector, Location and Gender	31
Table 18.	Terms and Conditions of the Effective and Potential Loan Demand by Potential	

Entrepreneurs	32
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Appendix A: The Enterprise Survey Results

Table A1.	Characteristics of the Firms in the Enterprise Survey.	55
Table A2.	Profile of the Firms in the Enterprise Survey.	56
Table A3.	Selected Characteristics of the Entrepreneurs and their Enterprises in the Enterprise Survey.	57
Table A 4.	Selected Characteristics of the Entrepreneurs in the Enterprise Survey.	58
Table A5.	Selected Characteristics of the Enterprises by Size of Business	59
Table A6.	Selected Characteristics of the Enterprises by Sector	60
Table A7.	Selected Characteristics of the Enterprises by Location	61
Table A8.	Selected Characteristics of Enterprises by Gender	62
Table A9.1	Sources of Investment Capital Reported in the Enterprise Survey.	63
Table A9.2	Sources of Investment Capital Reported in the Enterprise Survey by Size of Business.	63
Table A9.3	Sources of Investment Capital Reported in the Enterprise Survey by Sector	64
Table A9.4	Sources of Investment Capital Reported in the Enterprise Survey by Location	64
Table A9.5	Sources of Investment Capital Reported in the Enterprise Survey by Gender	64
Table A10	Selected Indicators of the Relations between Entrepreneurs and Suppliers in the Enterprise Survey	65
Table A11.	Selected Characteristics of the Trade Credit Relation (Credit Payment) between Entrepreneurs and Suppliers in the Enterprise Survey	65
Table A12.	Selected Indicators of the Relations between Entrepreneurs and Customers in the Enterprise Survey	66
Table A13.	Selected Characteristics of the Trade Credit Relation (Advance Payment) between Entrepreneurs and Customers in the Enterprise Survey	66
Table A14.	Selected Characteristics of the Informal Loans Entrepreneurs Use in the Enterprise Survey	67
Table A15.	Selected Characteristics of the Entrepreneurs Demand for Formal Loans in the Enterprise Survey	68
Table A16.	Selected Characteristics of the Formal Loans Entrepreneurs Used the Past Year in the Enterprise Survey	69
Table A17.	Current Funding Sources Reported in the Enterprise Survey	70

Table A18.	Current Funding Sources Reported in the Enterprise Survey by Size of Business . . .	71
Table A19.	Current Funding Sources Reported in the Enterprise Survey by Sector	72
Table A20.	Current Funding Sources Reported in the Enterprise Survey by Location	73
Table A21.	Current Funding Sources Reported in the Enterprise Survey by Location	74
Table A22.	Savings Channels Reported in the Enterprise Survey	75
Table A23.	Participation in Informal Groups Reported in the Enterprise Survey	76
Table A24.	Selected Characteristics of Potential Formal Loan Demand by the Entrepreneurs in the Enterprise Survey	77
Table A25.	Potential Demand For Group Loans Reported in the Enterprise Survey	78
Table A26.	Selected Indicators of Constraints and Problems Facing the Entrepreneurs in the Enterprise Survey	79
Table A27.	Selected Indicators of Competition and Business Associations in the Enterprise Survey	80

Appendix B: The Potential Entrepreneurs Survey Results

Table B1.	Selected Characteristics of the Potential Entrepreneurs and Enterprises.	82
Table B2.	Selected Characteristics of the Individuals in the Potential Enterprise Survey.	83
Table B3.	Sources of Investment Capital Reported in the Potential Enterprise Survey.	84
Table B4.	Selected Characteristics of the Informal Loans Individuals Use in the Potential Enterprise Survey.	85
Table B5.	Selected Characteristics of the Individuals' Demand for Formal Loans in the Potential Enterprise Survey.	86
Table B6.	Selected Characteristics of the Formal Loans Individuals Used the Past Year in the Potential Enterprise Survey.	87
Table B7.	Savings Channels Reported in the Potential Enterprise Survey.	88
Table B8.	Participation in Informal Groups Reported in the Potential Enterprise Survey.	89
Table B9.	Selected Characteristics of Potential Formal Loan Demand in the Potential Enterprise Survey.	90
Table B10.	Potential Demand For Group Loans Reported in the Potential Enterprise Survey.	91
Table B11.	Selected Indicators of Constraints and Problems in the Potential Enterprise Survey. .	92
Table B12.	Competition Reported by Individuals in the Potential Enterprise Survey.	93

Appendix C: Definitions of the Econometric Models and Results

Table C1.	Definition of Variables in the Simultaneous Equations Model: Determinants of the Use of the Different Sources of Financing	95
Table C2.	Results of the Reduced Form Equations of the Model: Determinants of the Use of the Different Sources of Financing	96
Table C3.	Results of the Second Stage Estimation of the Model: Determinants of the Use of the Different Sources of Financing	97
Table C4.	Definition of Variables in the Potential Loan Demand Models	98
Table C5.	Estimation Results of the Potential Individual Loan Demand Model in the Enterprise Survey	99
Table C6.	Estimation Results of the Potential Group Loan Demand Model in the Enterprise Survey	100
Table C7.	Estimation Results of the Potential Individual Loan Demand Model in the Potential Enterprise Survey	101
Table C8.	Estimation Results of the Potential Individual Loan Demand Model in the Potential Enterprise Survey	102

EXECUTIVE SUMMARY

The purpose of this study is to generate economic, financial and social profiles for micro and small scale entrepreneurs as well as potential entrepreneurs in Jordan. The United States Agency for International Development (USAID) is supporting a project in Jordan to strengthen access to microfinance and improved implementation of policy reform (AMIR). The aim of the project is to assist banks and non-bank institutions in providing sustainable financial services to micro and small scale entrepreneurs. This study presents the findings of a baseline survey of a randomly selected sample of 350 micro and small scale entrepreneurs and a survey of 216 potential entrepreneurs across various sectors in the three most populated areas in the country, Amman, Irbid and Zarqa. Meeting the objective of this study provides the AMIR project with indicators of micro and small scale entrepreneurs and potential entrepreneurs' effective demand for financial services as well as their potential demand for formal individual and group loans in Jordan.

The Enterprise Survey

Sources of finance reported by the entrepreneurs for current operations included both informal and formal channels. First, about one third of the entrepreneurs reported using trade loans from their suppliers and a few used advances from their customers. Supplier credit was the principal type of trade credit that most entrepreneurs used. Second, informal sources of finance from family and friends were reported by about one third of entrepreneurs in the sample. Third, over two thirds of the entrepreneurs reported never requesting formal loans primarily because of the availability of other sources, fear of inability of repayment, and religious beliefs. About one fourth of the entrepreneurs who had requested a formal loan at one time were rejected, which indicates a relatively significant incidence of loan quantity rationing. Fourth, only one fourth of the interviewed entrepreneurs acquired formal finance at one point in the past. More importantly, only about one tenth had used a formal loan over the past year.

On the savings side, the entrepreneurs' use of formal savings channels, commercial banks in principal, was associated with half of the entrepreneurs. Another form of savings was participation in the informal rotating savings and credit groups (RoSCAs) or "gam'iyat". Roughly one fourth of the entrepreneurs in the sample reported participating in "gam'iyat".

Investigation of the effective demand for formal loans indicated that entrepreneurs who demanded formal loans over the past year used amounts with a median of JD3000, at an average

interest rate of 14 percent, for a term of about 2 years, with collateral values reaching over 100 percent of the loan amount, and a value of monthly installments with a median of about JD150. Investigation of the potential demand for individual loans indicated that almost half of the entrepreneurs had interest in gaining access to working capital loans with a median size of JD5000, at 6 percent interest, and for a 3 years term. These results indicate that the potential demand bears different loan terms and conditions from the effective demand. While entrepreneurs effectively pay interest rates that average 14 percent, their willingness to pay for potential loans reached only a mere average of 6 percent. Moreover, while entrepreneurs' effective demand for loans had a median size of about JD3000, the potential demand registered amounts with a median of JD5000. Lastly, small scale enterprises, those in the manufacturing and service sectors, and those in Amman and Zarqa had a larger potential demand for individual loans than their counterparts.

Investigation of the entrepreneurs' potential demand for group loans revealed that only a fourth of the sample was interested in group loans. The potential demand for group loans was smaller than that for individual loans, with the median for groups loans at about JD3000 repaid with one installment per month for a period of two and a half years. Interestingly, more men entrepreneurs, those in the manufacturing sector, entrepreneurs in Amman and Irbid, and small scale entrepreneurs had a higher potential demand for group loans than their counterparts.

The Potential Entrepreneurs Survey

Sources of finance reported by the potential entrepreneurs included both informal and formal channels. First, informal sources of finance from family and friends were reportedly used by about one third of the potential entrepreneurs over the past year. These informal loans were rather small as the median was about JD200, granted for 2 to 3 months, free of interest and typically unsecured. Second, the majority of the potential entrepreneurs had never requested formal loans primarily because of the fear of inability of repayment, religious beliefs, insufficient collateral, and availability of other sources. Among the respondents who had requested a formal loan in the past, about a fourth were rejected which indicates, again and similar to the results in the enterprise survey, a relatively significant incidence of loan quantity rationing. Third, only very few potential entrepreneurs had acquired formal loans last year. These loans were largely consumer loans with a median loan size of JD450, granted at 12 percent interest charges, for a period of about one year, with monthly installments of JD40, and 100 percent securities.

With respect to savings, on the one hand, the respondents' use of bank savings services was

reported by only one fourth of the sample. More male respondents and those interested in the trade sector reported holding deposits with banks. On the other hand, participation in the informal RoSCAs or “gam’iyat” was higher as it was reported by about a third of the sample. These were largely women groups, comprised of about 14 members, who met once a month and the total contribution per member reached about JD240 per year. Gender and location distributions implied, as expected, that more female respondents and those who reside outside Amman were members of these groups. Potential demand for electronic cards was significant. Most of those interested in these cards, however, reported interest in ATM cards rather than credit cards. Interestingly, respondents suggested they were willing to pay a fee for their card use. Lastly, few respondents indicated that they hold any type of insurance.

The investigation of the respondents’ potential demand for group loans revealed that only a few respondents were interested in these types of loans. Interestingly, there were more men than women interested in group loans. The median value of these loans was about JD2000 to be repaid over a period of 2 years with monthly installments. Men and potential entrepreneurs interested in the trade sector had a higher potential demand for group loans than their counterparts.

The potential demand for individual loans was much more significant than group loans among potential entrepreneurs. Over two thirds of the respondents reported interest in gaining access to working capital and fixed assets loans. The preferred terms and conditions for these loans included a median amount of about JD3000, to be repaid over a period of three years, lent at 5 percent interest charges, 1 percent fee charges, with the majority of the respondents offering no collateral or any form of guarantee. More male potential entrepreneurs, those in the service and trade sectors, and those respondents residing in Amman had a higher potential demand for formal individual loans than their counterparts.

Lessons

The effective and potential demand for the various types of financial services by entrepreneurs and potential entrepreneurs reflect several lessons.

Client Profile

The surveys revealed that entrepreneurs and potential entrepreneurs both have effective and potential demand for various informal and formal financial services. The potential demand for individual

loans is much higher than that for group loans for all types of microentrepreneurs. Size of the enterprise, sector of operation, location, and gender of the micro and small entrepreneurs, however, affect the entrepreneurs' demand for alternative financial services.

Size of the enterprise indicates that more small scale entrepreneurs use trade credit, formal loans, hold bank accounts and have a higher potential demand for formal individual and group loans than microentrepreneurs and sole operators. The highest participation in informal groups is among the sole operators. This implies that small scale entrepreneurs are potentially the more likely type of clients to demand individual loans from microfinance institutions while the single operators could possibly be interested in group loans

Sector of operation indicates that enterprises in manufacturing rely more on the use of informal loans and participation in informal groups than enterprises in the other sectors. Manufacturing enterprises, however, reported the highest potential demand in both individual and group loans. Potential entrepreneurs interested in establishing enterprises in the manufacturing sector, also, indicated the highest use of informal loans and participation in informal groups. Potential entrepreneurs interested in the service sector, however, reported the highest use of formal loans and the highest potential demand for individual loans.

Location of the enterprise indicates that enterprises in Amman use more trade credit and formal loans. Entrepreneurs outside Amman, however, reported the highest participation in informal groups. Potential demand for individual loans by entrepreneurs was the highest in Irbid and potential demand for group loans was the highest in Amman. Potential entrepreneurs residing outside Amman, also, reported a higher participation rate in informal groups than those in Amman. Potential entrepreneurs in Amman, though, had the highest potential demand for individual loans.

Gender of the entrepreneurs indicates male entrepreneurs use more trade credit while more female entrepreneurs participate in "gam'iyat". Both men and women entrepreneurs had a high potential demand for loans, with men reflecting a little more interest in both individual and group loans. Finally, while more women potential entrepreneurs were members of "gam'iyat", men potential entrepreneurs had a higher potential demand for individual and group loans.

Financial Products

Preference for alternative **lending technologies** indicates a higher potential demand for

individual versus group loans. The terms and conditions associated with individual loans allow for more flexibility in terms of size of the loan, disbursement, term, and repayment schedule, which render individual loans as a more attractive and valuable loan product for many entrepreneurs and potential entrepreneurs. In contrast, group loans seem to have a lower value, particularly when associated with the additional responsibility and risk of group repayment in case of default by any member of the group, rigid disbursement, repayment schedules, and meetings.

Effective and potential demand for formal loans indicate larger **loan size** than typically associated with informal loans. This is not surprising, particularly when one takes into account the frequency of use of each type of loans. Trade credit, which involves roughly JD200 every two weeks, yields a total annual debt figure of about JD4800. This is comparable with the potential demand loan size of JD5000 for individual loans, and the effective demand loan size of JD3000 that is typically used once per year by entrepreneurs. Loan quantity and loan size rationing, also, indicate that there is a higher effective demand for formal loans than is registered in the market outcome. Moreover, the potential entrepreneurs' demand reflects slightly smaller loan amounts of JD3000 for individual loans and JD2000 for group loans than those demanded by existing entrepreneurs. This is reasonable given the limited repayment capacity of new businesses.

Entrepreneurs and potential entrepreneurs borrowing from formal sources at market interest rates, suggest that potential loans from microfinance institutions should have lower **interest rate charges**. This typical low willingness to pay for financial services by low income entrepreneurs and potential entrepreneurs is, however, rhetorical considering that the effective demand reflects that borrowers actually are willing and able to pay market interest rates. Some entrepreneurs using trade credit are even paying higher effective interest charges to their suppliers in the informal markets. Moreover, credit rationing indicates that there are some applicants who are willing to pay at least the market interest rates and are screened outside the formal financial markets.

Typically, formal loans have longer **term to maturity** than informal loans. Effective demand indicates that entrepreneurs and potential entrepreneurs are using formal loans that mature in one to two years. Potential demand, however, reflects interest in even longer maturity periods of up to three years. While manufacturing enterprises may require longer term loans, traders are likely to be attracted to shorter term loans given the high turnover of their business cycle.

Availability of **collateral** requirements did not seem to be a problem for entrepreneurs and potential entrepreneurs. The use of guarantors to secure loans, moreover, allowed a number of

individuals to access formal loans. Most entrepreneurs reported being able to provide one form of collateral to secure individual loans, while only half of the potential entrepreneurs indicated they were able to provide any type of collateral. While group monitoring attracts some entrepreneurs and potential entrepreneurs to the use of group loans, high group transaction costs, rigidities and risks deter many.

Hence, the various terms and conditions of individual and group loans and the effective and potential demand for loans exhibit a set of characteristics that could be used to redefine the lending technologies adopted by microfinance institutions in Jordan to meet the demand of most clients. Different types of clients will find a match among the alternative technologies to meet their demand requirements.

Size of the Market Demand

Market niches exist in the largely unexplored microfinance market in Jordan. Effective demand estimates of the entrepreneurs' use of formal loans indicate that the total formal debt used by the sample over the past year reached over JD300,000. Extrapolating to the population, using the official statistics on the number of establishments, generates a more impressive effective market demand that could reach up to JD168 million. Moreover, estimating the potential demand for the microenterprise population under study indicates even a much larger market of JD158 million for individual loans and JD51 million for group loans. Similarly, the potential entrepreneurs' survey reflects that the potential demand could reach about JD100 million for individual loans and JD12 million for group loans. It should be highlighted, however, that the potential demand estimates are based on the reported terms and conditions suggested by the entrepreneurs which include 6 percent interest rates. Nonetheless, the exercise serves the purpose of suggesting that the microfinance market size is much larger than what is currently being met by the institutions offering microfinancial services in the country.

THE DEMAND FOR MICROFINANCIAL SERVICES IN THE MICRO AND SMALL SCALE ENTERPRISE SECTOR IN JORDAN

I. INTRODUCTION

1. Purpose of the Study

The purpose of this study is to generate economic, financial and social profiles for micro and small scale entrepreneurs as well as potential entrepreneurs in Jordan. The United States Agency for International Development (USAID) is supporting a project to strengthen access to microfinance and improved implementation of policy reform (AMIR) in Jordan. The aim of the project is to increase economic growth through sustainable microfinance initiatives, and to stimulate greater investment and refurbish the Jordanian business environment to become more globally competitive. The microfinance component of the AMIR project will provide support for sustainable bank and non-bank financial institutions to provide credit and other financial services to micro and small scale Jordanian entrepreneurs. This study presents and analyzes the findings of the baseline survey of a randomly selected group of micro and small scale entrepreneurs (SMEs) and another group of individuals with potential entrepreneurial interest across various sub-sectors of the economy and in the three most populated regions in the country. Meeting the objective of this study provides the AMIR project with indicators of micro and small entrepreneurs as well as potential entrepreneurs' demand for microfinancial services in Jordan.

The introduction presents an overview of the Jordanian economy and a brief discussion of microfinance in Jordan. Section two reports on the baseline survey outlining, first, the general attributes of the SMEs, the economic characteristics of their enterprises, their effective demand for current financial services, including both formal and informal savings and loans, and their potential demand for other financial services. Section two, also, highlights differences across the entrepreneurs and their enterprises based on size, sector, location, and gender. Section Three reports on the non-entrepreneurs or individuals entrepreneurial potential, their effective demand for financial services, both

formal and informal savings and loans, and their potential demand for other financial services. Moreover, section three highlights differences across the potential entrepreneurs based on sector, location, and gender. This discussion is followed by a presentation of the empirical models, in section four, that examine the determinants of the entrepreneurs' use of the alternative financial assets and liabilities as well as their potential demand for individual and group loans. Similarly, section five presents the empirical models that test the non-entrepreneurs' potential demand for formal individual and group loans. Finally, section six, draws together the summary and conclusions of the study.

2. Background on Jordan

Jordan's high population growth rate of 3.7 percent during the 1980s and 5.7 percent during the first half of the 1990s, resulted in doubling its population from 2 million to 4 million over the past couple of decades (WDR, 1997). The majority of Jordanians live in the capital Amman (41 percent) and in the secondary cities of Irbid (23 percent) and Zarqa (15 percent)¹. The majority of the labor force (53 percent) is concentrated in the service sector which contributes the largest share (65 percent) to the gross domestic product (GDP) compared to one third (32 percent) in industry which contributes to one third of the GDP (37 percent) and one fifth (21 percent) engaged in agriculture which contributes to only 8 percent of GDP². While the labor force has been growing at about 5 percent over the past two decades, private sector employment continues to represent roughly half of the labor force, and women continue to represent 21 percent of that total labor force³.

Jordan has been making progress in boosting its economy since the Gulf war. A healthy growth in the GDP of 6.9 in 1995 and 5.2 in 1996, and an optimistic forecast for 1997, has been accompanied by increases in investment up to 16 percent in 1996.⁴ This positive macroeconomic environment,

¹ Jordanian Department of Statistics, Secondary statistics on the Jordanian Economy as of 1994.

² World Development Report, 1997.

³ World Development Report, 1997.

⁴ MEED: Middle East Business Weekly, 1997.

however, has not translated into positive microeconomic wellbeing for many Jordanians.

Unemployment figures, reported at about 17 percent of the labor force, coupled with the fact that about 22 percent of the labor force is composed of largely low wage foreign labor, have contributed to an increase in the number of Jordanians living below the poverty line from 3 percent in 1987 to 20 percent in 1996⁵.

The banking industry in Jordan, with its assets concentrated in five major banks, has continued catering largely to its sizable national expatriate community and the well established medium and large scale enterprises in the country⁶. Faced with tough conditions, over the past banks have been more active in taking advantage of new opportunities with changes in legislation and increased openness to international markets. At the same time, the difficult microeconomic conditions which have undoubtedly led to growth of the informal and microenterprise sector over the past decade, have pushed the Jordanians further into *terra incognita* when it comes to microfinance⁷. Although illiteracy figures indicate about 21 percent female and 7 percent male illiteracy, the low income population in Jordan has grown, thus, presenting increasing demand to develop support institutions for microentrepreneurs, and in particular microfinance institutions for the poor.

3. Microfinance in Jordan

A. Microfinance Approaches

⁵ USAID, RFP AMIR project, 1997.

⁶ As of 1995, there were 10 domestic commercial banks with five major banks: the Arab Bank holding about 30% of the total banking assets, The Housing Bank, Jordan Islamic Bank, The Bank of Jordan, and Cairo Amman Bank; five foreign commercial banks; six private investment banks; one industrial development bank; and one specialized credit institution. The network encompasses 430 branches distributed over the Kingdom leading to a ratio of 9796 individuals per branch. (Jordan Internet Resources).

⁷ Businesses with less than four employees that may or may not register or obtain a licence for operation fall in the microenterprise category. Businesses with four or more employees that do not register, acquire licences for business operation, or pay social security for their employees also fall in the informal microenterprise category.

Financial contracts involve default risk because of adverse selection and moral hazard problems associated with the borrower's indeterminate type and unpredictable action (Stiglitz and Weiss, 1981). Imperfect information generates an equilibrium in credit markets where interest rates are inadequate to clear the market demand for loans (Bester, 1987; Jaffee and Russell, 1976). To resolve these information problems and to identify the most creditworthy borrowers, lenders utilize non-price rationing mechanisms based upon the attributes of the entrepreneurs and the characteristics of their enterprises. Factors associated with the characteristics of the entrepreneur include education, gender, age and experience in operating the enterprise, while factors associated with the characteristics of the enterprise include size, profits and sector of activity, among others. Some of these factors represent certain classes of borrowers, such as microentrepreneurs and female borrowers, that are often believed to experience discrimination in financial markets. Credit rationing occurs when lenders grant the loans demanded by applicants who are identified as credit-worthy borrowers while granting loans smaller than demanded to some applicants⁸ and completely rejecting other applicants who are willing to pay the interest rate demanded⁹.

Micro rural and urban enterprises have been the concern of many policy makers attempting to accelerate the development process in low income countries. Special microenterprise programs that provide targeted credit, training and technical assistance, have been created to assist those microentrepreneurs who have difficulty accessing regular commercial loans because of information asymmetries. The *supply leading* approach to the development of microenterprises over the past two decades has recorded many more failures than successes which in turn has led to many regrettable consequences. Microenterprise programs have experimented with alternative lending mechanisms that include individual loans as well as group loans. Programs that have granted targeted loans at subsidized interest rates have almost universally recorded dismal results. Subsidized credit does not resolve the problem of financial institution's lack of active provision to the microentrepreneur clientele. Moreover, subsidized credit does not enhance the capacity of the financial institution in building borrower-lender relationship, or adopting the appropriate financial technologies, and management information systems that would allow these institutions to serve the microentrepreneurial clientele.

⁸ Loan size rationing occurs when lenders grant loans smaller than demanded to some applicants.

⁹ Loan quantity rationing occurs when lenders completely reject some applicants.

A few microfinance institutions, that have adopted individual and/or group lending technologies, have been able to sustain their operations to date. Evolution of the *demand leading* approach to microfinance have increasingly pushed microfinancial institutions to promote outreach, i.e. in terms of the quality of service, level of poverty and scale, as well as financial viability, i.e. when an institution can maintain its operations indefinitely without accessing donor support by accessing more sources of funds only through client savings (Christen, Rhyne, Vogel and McKean, 1995; Otero and Rhyne, 1994; Yaron et al., 1997) The outreach and sustainability principals are the driving forces behind successful and best practice microfinance institutions. Although not universally easily replicable, several elements including small loan sizes, short maturity periods, frequent repayment, simple applications, few standardized loan products, efficient lending officers, cost covering interest rates, management information systems, and savings mobilization, have allowed some microfinance institutions reach their goals of outreach and sustainability.

Group lending has been identified, in some cases, as an appropriate delivery mechanism that reduces lenders' costs when providing financial contracts to a group of clientele characterized with immense information problems. Group solidarity and peer pressure have been regarded as the principle driving forces behind the success of some group lending institutions, particularly when the target group are low income women (Berenbach and Guzman, 1995; Goldberg and Hunte, 1995; Khandker, Khalily and Khan, 1995). On the one hand, group solidarity is argued to enhance women's empowerment at the time when information asymmetries render individual financial contracts too costly and inaccessible¹⁰. Extensive borrower transaction costs, exhaustive administrative costs, considerable risks pertinent to the joint liability structure of groups, and cultural barriers, on the other hand, are considered as impediments to group lending. The benefits of group lending technology should outweigh the costs to both borrowers and microfinance institutions in order for the organizations to be viable and sustainable¹¹. Exogenously formed groups, particularly in areas where Rotating Savings and Credit

¹⁰ Women microentrepreneurs typically demand small loans, have little or no credit history and are geographically inaccessible to formal lenders. The lack of credit history and the amount of fixed costs that would be incurred by the lender regardless of loan size, make it expensive for lenders to provide loans to this group of borrowers.

¹¹ Borrowers' costs include time and costs of group formation and start-up, group meetings, travel costs for repayments, and the opportunity cost of foregone time and returns from market and non-

Associations (RoSCAs) are not customary, are potentially unstable and, therefore, likely to be associated with higher group formation costs than benefits.

B. Microfinance Capacity in Jordan

Microfinance programs in Jordan are still in their infancy stage. Research efforts by a recent World Bank study identified a few leading governmental programs and Non-Governmental Organization (NGOs) that are providing financial services to microentrepreneurs in the country (Brandsma and Khayatt, 1996). Very few of these programs, however, have attempted to provide financial services in a sustainable fashion. Among the more active programs are the UNRWA, Agricultural Credit Corporation (ACC), Development Employment Fund (DEF), Save the Children Foundation (SCF), and Queen Alia Fund (QAF).

The primary goals of many of these NGOs are social which focus on enhancing the quality of life for the poor, in terms of better access to nutrition, health, shelter, education, etc.. The financial programs operated by a number of these NGOs is marginal in its outreach. This implies that the real interest rate was barely positive given that the inflation rate in Jordan over the past decade was at about 8 percent. Therefore, many of these program, unsurprisingly, experienced poor repayment and documented high default rates. Among the NGOs, SCF have been identified as having wider outreach and higher potential for sustainability. Like many NGOs engaged in the provision of financial services, Save the Children target women only and has adopted the group delivery system for their group guarantee lending and saving (GGLS) program in Jordan. In summary, most microfinance institutions in Jordan require institutional capacity strengthening to achieve outreach and sustainability.

II. CHARACTERISTICS OF THE MICRO AND SMALL SCALE ENTERPRISE SURVEY

market household production. In addition, borrowers are subject to compulsory risk-bearing because of joint liability. Lenders' costs also include the costs of co-organizing and managing group formation, potential costs of loan recovery resulting from failure of unstable groups, and training costs, among others (Nguyen, 1998; Untalan, 1996).

1. Overview of The Survey

To examine the demand for alternative financial services in the micro and small scale enterprise sector in Jordan, a survey of micro and small scale enterprises was carried out in April of 1998. The definition of micro and small scale entrepreneurs includes those businesses with 10 or less employees. Given the objective of the AMIR project¹², the survey included a random sample of 350 microentrepreneurs in the manufacturing, service and trade sectors, across the more dynamic sub-sectors, in the three most populated cities in the country, namely, Amman, Irbid, and Zarqa. The sub-sectors in the sample included garment manufacturing, handicraft production, food processing, wood processing and metal production within the manufacturing sector; general services, hairdressers, restaurants and catering within the service sector; and retail and wholesale trade within the trade sector. Official statistics suggest that the population of registered entrepreneurs in these sub-sectors is about 73706 establishments.¹³

Given the small representation of women microentrepreneurs in the labor force and the lack of official statistics about the informal sector, the sample design involved overweighing the sub-sectors that are considered more typical women activities--such as garment manufacturing, handicraft production, food processing, hairdressers, catering, and retail trade-- in an attempt to include about 50 percent women microentrepreneurs in the sample. Moreover, the total number of microentrepreneurs interviewed in each region corresponded roughly to two thirds in Amman and one third in both Irbid and Zarqa according to the targets of the AMIR project¹⁴. The enterprise survey, thus, comprised of a total of 350 microenterprises in the service, manufacturing and trade sectors, representing about 0.5 percent of the total population of the sub-sectors under study.

¹² The objective of the AMIR project is to support bank and non-bank institutions that provide service microentrepreneurs. The goal of the project is to reach 50 percent women microentrepreneurs, with one third of its clientele outside Amman in four years.

¹³ Data provided by the Department of Statistics, Dr. Said Abu Shaar. It should be noted, however, that this figure does not account for informal microenterprises that operate without licences.

¹⁴ The composition of the sample is, therefore, pre-determined by gender, sub-sectors of operation, and location.

A. Characteristics of the Enterprises

As mentioned earlier, the enterprise survey covered the manufacturing, services, and trade sectors of the economy, with particular focus on the more dynamic sub-sectors. Again, these sub-sectors consisted of garment manufacturing, handicraft production, food processing, wood processing, metal production, general services, hairdressers, restaurants and catering, and retail and wholesale trade. Table A1 (Appendix A) provides the breakdown of the share of enterprises in each sector in the sample. The distribution reflects that about 42 percent of the enterprises fell in the manufacturing sector, roughly one third (35 percent) in the services sector and one fourth (23 percent) in the trade sector. Data in table A1 also show the distribution across the geographic areas in the country, where about two thirds (73 percent) of the enterprises were selected in the capital Amman, and about one third in both Irbid and Zarqa. Since the micro and small scale size category encompassed those enterprises with 10 or less employees, no *a priori* size division was pre-determined. Examining the concentration of enterprises, by the number of employees, indicates that about one fifth of these SMEs were sole operators, i.e. with no employees, family labor or apprentices. The majority of the SMEs in the sample (63 percent) were micro with 1 to 4 employees. Finally, 15 percent were small scale enterprises with 5 or more employees. This distribution indicates that the more typical SMEs are micro operations with less than 4 employees including family labor and apprentices.

The majority of the micro and small scale enterprises in the survey (79 percent) were proprietorships with less than one fifth (17 percent) partnerships. The vast majority of these establishments, however, were registered businesses that operated with licences and possessed registration cards. Very few, though, paid social security for all or some of their employees. The primary reason provided by the entrepreneurs was that it was not necessary to provide social security to their employees.

The average enterprise in the sample has been in operation for about 8 years with the interviewed entrepreneur/manager running the business for an average of 7 years (Table A2). The present market value of physical assets, excluding land and building, reached a median value of about

JD2,000 (with an average value of JD4,560)¹⁵, while the initial investment value was a reported median of JD3,000 (with an average of JD 6,400).¹⁶

On average, microenterprises started with one worker and currently employ an average of 2 workers. These figures imply that the SMEs in the sample have not experienced significant growth. The average annual growth rate, based on the change in the number of employees over the life of the business, reflects that SMEs have been growing at an average of 20 percent; however the median reflects a zero growth rate which indicates that many of these SMEs have been stagnant. Moreover, growth rates in production over the past year, as reported by the entrepreneurs, draw even a more dismal picture with an average decrease of 16 percent on average.

B. Characteristics of the Entrepreneurs

Small scale enterprises frequently have been characterized as consisting of many otherwise unemployed workers who operate mostly in the informal sector. In our sample, however, the majority of the entrepreneurs had registered businesses operated mostly by their owners (Table A3). The gender composition of the sample included a few more men (63 percent) than women microentrepreneurs (37 percent). This indicates that the predominance of men in the labor force is evident in our sample. Spouses, for the most part, do not play an active role in the enterprise. Only a few entrepreneurs (5 percent) reported that their spouses helped in financing the business. More importantly, the vast majority of the entrepreneurs (96 percent) do not hold any other form of employment implying that they are full-time entrepreneurs.

In general, illiteracy was not a problem, save for a few cases. The entrepreneurs' educational level was fairly good given that over half of them had finished at least high school level or higher (Table A4). Moreover, the typical 37 years old entrepreneur was responsible for a household with an average of 4 individuals. About half of the entrepreneurs owned their homes and the rest rented. These figures

¹⁵ The high variation between the mean and median indicates that the distribution of the data is skewed to the right, and therefore, the median is a more accurate measure.

¹⁶ The exchange rate at the time of the survey was US\$ 1.4 = JD 1.

indicate that the microentrepreneurs, although were generally classified among the low income population group in the country, had reasonable housing conditions. The majority of the entrepreneurs (72 percent), however, were the sole providers for their families. Those who indicated that other household members were employed reported an average of two individuals who earned an additional income with a median of JD300 per month.

C. Size Variations

A wide variety of definitions of micro and small businesses exist. Given the objective of the AMIR project and the focus of our study on micro and small scale enterprises, the following breakdown was used *ex-post* during the analysis to examine any variations in the profiles of the businesses based on size categories. Sole operators are those entrepreneurs running their business solely on their own with no hired workers or unpaid family labor or apprentices. Microenterprises are those businesses operated by the entrepreneurs along with 1 to 4 workers, family labor or apprentices. Small scale enterprises are those establishments operated by the entrepreneurs and five or more workers, family labor or apprentices.

Table A5 presents selected indicators that highlight the differences among the three size categories. Although the average number of years of operation does not seem to vary by size of the enterprise, the average number of employees, as expected, varied significantly. Not surprisingly, sole operators started with no employees and continue to operate on their own. Microentrepreneurs started with a median of one employee and currently operate with a median of two employees. This implies that microenterprises began as micro and remain micro. Small scale enterprises, however, started with a median number of 3 employees and operate currently with a median of 6 workers. This implies that many small scale enterprises began as micro and eventually graduated to small scale businesses.

The average growth rates for the three size categories shed further light on these variations and the graduation hypothesis (Table 1). The growth rates, using the classification of the enterprises based on their initial employment figures, indicates that many of those enterprises that start as sole operations are the ones that grow to micro and small scale with a median growth rate of 6 percent. Many businesses that start as micro and small scale, have actually remained stagnant or experienced a decline in their size. This interpretation is confirmed by examining the growth rates using the classification of the enterprises based on their current number of employees. These figures indicate that many currently micro and small scale enterprises have actually experienced high growth rates over their lifetime. Nonetheless, the entrepreneurs across all three size categories reported negative growth rates in production over the past year.

Table 1. Employment Profile of Businesses by Size^a

	<u>Sole</u>	<u>Micro</u>	<u>Small</u>
# of Start-up Employees	0	1	3
# of Current Employees	0	2	6
sample size (n)	77	219	54
Annual Growth Rate ^b	0%	4%	17%
sample size (n)	142	181	27
Annual Growth Rate ^c	6%	0%	-2%
Note a: All statistics based on medians			
Note b: Based on current # of employees.			
Note c: Based on initial # of employees.			

The average value of physical assets is in line with the size category variations, indicating that sole operators had a smaller average value than micro and that small had a much larger average value than micro (Table A5). This also implies that some of the technologies and machinery employed by small scale enterprises is more capital intensive than those for micro and small. The sectoral distribution of the three size categories indicates that while the majority of the small scale enterprises were in the manufacturing and service sectors, about one third of the micro and sole operators engaged in trade. Very few small scale enterprises were in trade given that trade is typically microenterprise and requires very few employees and little physical assets. Interestingly, gender distribution by size categories did not indicate much variations, and finally, location reflected that more of the small scale enterprises were in Amman rather than outside the capital.

D. Sector Variations

Sub-sector analysis entails examining commodity-specific sub-sectors with the objective of identifying support systems and constraints facing micro and small scale enterprises. This methodology allows for the study of the role of the various economic agents, the terms and conditions of their contracts, the linkages in their transactions and the constraints affecting the different economic units in a certain market. Thus, by considering an industry, sector, or sub-sector classification, similarities and differences among firms may be identified that explain variations in the performance of enterprises. However, prior to analyzing the differences in the contracts between entrepreneurs and their suppliers and customers, and the performance of these enterprises, it is useful to quickly review the differences in the characteristics of the establishments across the three sectors under study.

Enterprises operating in the service sector had the largest value of physical assets followed by manufacturing enterprises, and trade establishments (Table A6). Traders do not utilize much machinery or tools which explains the low average value of their physical assets. Industry classification was also associated with the concentration of micro and small scale enterprises in certain sectors. Statistics in table A6 indicate that the majority of enterprises in the trade sector fall in the microenterprise category when they first begin their operations with one or no employees. Very few traders were found in the medium scale category. Similarly, based upon the number of current employees, most traders hire on average just one employee. Figures in table A6 also indicate that currently most of the manufacturing and service enterprises fall in the microenterprise size category, with 3 employees on average.

Growth in employment is reflected by the differences in the average number of employees the firm started with and the current number of employees (Table A6). While traders do not seem to experience much change in the number of employees, employment figures for the manufacturing and service enterprises indicate some increases over the lives of these enterprises. The annual growth rate for enterprises measured by the change in number of employees over the number of years the enterprise has been in operation indicates that manufacturing enterprises have experienced more growth than those in the service and trade sectors. Moreover, the figures indicating increase in production over the past year, reflect actually an overall decrease for all enterprises across the three sector, but more so for enterprises in the service and trade sectors.

E. Regional Differences

Characteristics of the enterprise varied to some extent based on the geographical location (Table A7). Enterprises in Amman, on the one hand, constituted about two thirds of the total sample. These were largely established businesses that had been in operation on average 8 years, employed an average of 3 workers, and had a median value of physical assets worth JD2000 (average JD5000). The towns of Irbid and Zarqa constituted our peri-urban sphere. Peri-urban enterprises in Irbid and Zarqa, on the other hand, had been in operation for about 7 and 8 years, employed 2 workers on average, and had a total median value of physical assets of about JD1500 (average value JD3000). The growth rate figures also indicate a slower growth rate for enterprises outside Amman compared to those in Amman.

The sectoral distribution of the urban and peri-urban enterprises was similar across the three regions. The size distribution of these enterprises, however, varied. While the largely urban enterprises in Amman were disbursed more across micro and small scale enterprises, the peri-urban enterprises in Zarqa and Irbid were concentrated among the sole operators and microenterprise categories. This is consistent with the figures of the average value of physical assets, which re-enforces the differences in the existing concentration of sole, micro and small scale enterprises in the urban and peri-urban regions. Finally, the gender composition of the peri-urban sample of Irbid and Zarqa was similar to that of Amman.

F. Gender Differences

Characteristics of the enterprises were analyzed based on the gender of the entrepreneur (Table A8). Surprisingly, very few differences were notable. While male operated enterprises have been in business for about 9 years on average, women operated enterprises have been in business for about 6 years. Contrary to expectation, while both men and women operated enterprises were in the microenterprise category, women operated enterprises seem to have experienced a higher growth rate than men operated enterprises. Moreover, a small differential was apparent in the average value of physical assets which was about JD4000 for male operated enterprises, while reaching about JD5500 for female operated enterprises; however, the median value of JD2000 was the same for both men and women. This is rather surprising in this typically traditional society where men represent the dominant share of the labor force.

2. Significance of the Existing Financial Channels

The entrepreneurs draw upon a variety of formal and informal networks of funding sources and savings channels. The informal channels that prevail in Jordan include family and friends; suppliers credit and customer advances (i.e., trade credit); and “gam’iyat” (Rotating Credit and Savings Associations, or RoSCAs). Although the formal financial sector in Jordan is expanding, formal channels reported by the entrepreneurs were mostly commercial banks. Compared to the wide array of informal financial channels, formal channels were limited in their role as financial intermediaries.

A. Investment Capital

For most entrepreneurs in this survey, personal savings accounted for the majority (74 percent) of the investment capital (Table A9.1-A9.5)¹⁷. The second most often used source of investment capital was family and friends (14 percent), followed by bank loans (10 percent). These sources, however, varied by the size of the enterprise (Table 2). Not surprisingly, 15 percent of the small scale enterprises reported using bank loans as a source for investment capital, while only 5 percent of the sole operators did, and only 10 percent of the microenterprises reported using bank loans as a source for investment capital.

Only a couple of entrepreneurs reported taking an NGO loan and another used a supplier loan for their investment purposes. These findings are similar to enterprise behavior in most developing countries. Entrepreneurs typically rely on personal savings to finance new business ventures or expansions, particularly in less developed capital markets where bank financing or non-bank financing sources, such as venture capital, scarcely represent the primary sources of business start-up or expansion costs.

Table 2. Sources of Investment Capital

	<u>Sole</u>	<u>Micro</u>	<u>Small</u>
Savings	78%	75%	68%
Family & Friends 17%	13%	11%	
Bank Loan	5%	10%	15%
NGO Loan	0%	1%	0%
Supplier Loan	0%	1%	6%

¹⁷ Investment capital refers to the latest major investment, either for expansion or start-up purposes, that the entrepreneur has undertaken.

Figures in table A9.3 indicate that the source of investment capital did not vary much by sector of operation. However, figures in table A9.4 indicate slight variation by location. These statistics indicate, in particular, that a higher percent of the entrepreneurs in Amman used bank loans as a source of financing to start or expand business ventures than those in Irbid or Zarqa. Lastly, gender of the entrepreneurs did not present much variations in their use of sources of finance for investment capital.

B. Contractual Relations with Suppliers and Customers

Sectoral and sub-sectoral variations imply differences in the linkages and contracts in the distribution or production of goods among the different entrepreneurs, suppliers, and customers. These variations are mainly manifested in the existing contracts between entrepreneurs and their suppliers and customers across different sub-sectors. Entrepreneurs purchasing input material on credit and/or selling products after receiving advance payments are engaged in trade credit contracts. Trade credit is one of the sources of financing working capital for many enterprises in both developing and developed capital markets. The linkage between input suppliers and entrepreneurs as well as the linkage between entrepreneurs and their customers in the enterprise sector in Jordan present a complex variety of contracts across the three sectors under study.

a) Relations with Suppliers

The majority of the entrepreneurs in the sample purchased input materials in the domestic market either from national suppliers or local agents (Tables A10 and A11). The relationship between suppliers and entrepreneurs typically influences the nature of the sale contract between these economic agents. Entrepreneurs who purchase inputs on credit typically buy from one or two suppliers. This relationship reduces transaction costs and helps resolve part of the asymmetric information problem that is often encountered between the principal-lender and the agent-borrower in credit contracts¹⁸.

¹⁸ See Stiglitz and Weiss (1981) for a discussion of asymmetric information problems in credit markets. Asymmetric information problems refer to the adverse selection and moral hazard behavior that the principal-lender encounters as a result of the agent-borrower's undetermined type, i.e. good or bad borrower, and unpredictable action, i.e. repayment performance.

On average, entrepreneurs purchased inputs as often as twice a week, with the majority purchasing their principal inputs in cash. Interestingly, about one third of the entrepreneurs across all three size categories bought inputs on credit. The credit linkages between entrepreneurs and suppliers particularly stand out for micro and small scale enterprises (32 and 44 percent, respectively, Table 3). In addition, more enterprises in the manufacturing and trade sectors (54 percent and 83 percent, respectively, table 4) purchased inputs on credit than enterprises in the service sector (23 percent).

The terms and conditions of the supplier trade credit contracts reflect some interesting findings (Table A11). First, the average value of trade credit, which is over JD500 (median JD185), comprised over half the value of the transaction. Second, entrepreneurs who used trade credit drew on these contracts as often as twice or three times per month. Third, about half of the entrepreneurs reported getting goods on credit free of interest charge¹⁹. Some suppliers, depending on the particular product and market structure, charged interest rates which averaged about 10 percent over the 1 to 2 month typical term of the credit contract. In addition, about half of the entrepreneurs reported providing their suppliers with security in the form of a signed promissory note to pay at the end of the term. The terms and conditions of the supplier trade credit contracts varied depending on the size of the business (Table 5).

As expected, larger enterprises (i.e., those in the small scale category) used larger amounts of

Table 3. Form of Payment to Suppliers by Size

	<u>Sole</u>	<u>Micro</u>	<u>Small</u>
Retained Earnings	75%	70%	68%
Credit	22%	32%	44%
Advance Payment	1%	1%	2%
Consignment	0%	1%	0%

Table 4. Form of Payment to Suppliers by Sector

	<u>MNFC</u>	<u>SRV</u>	<u>TRD</u>
Retained Earnings	77%	83%	41%
Credit	25%	24%	56%
Advance Payment	1%	0%	3%
Consignment	1%	1%	1%

Table 5. Supplier Credit Characteristics by Size

	<u>Sole</u>	<u>Micro</u>	<u>Small</u>
Avg. # of Transactions	19	39	37
Avg. Value of Credit, JD	722	401	990
Avg. Duration (days)	71	51	55

¹⁹ Interest charge on supplier credit was measured by considering the difference between the price of goods when sold on credit and the price of goods when sold in cash. The mark-up traders usually attach to the credit price, compared to the cash price, represents the implicit interest charge.

supplier credit. The frequency of using supplier credit also varied across the size categories. While small and micro enterprises used supplier credit as often as 37 and 39 times per year, respectively, sole entrepreneurs used supplier credit on average 19 times per year. These sole entrepreneurs, however, had longer term contracts on average than those used by micro and small scale entrepreneurs.

Surprisingly, only two entrepreneurs (1 percent) in the sample reported providing advance partial payment on occasions to their suppliers to secure access to the needed types of input materials. This implies abundance of raw material or goods in the market which would require no advance payment to secure. Finally, only a couple of entrepreneurs in the sample, also, purchased inputs on consignment.

The supply of trade credit by suppliers of inputs is dependent on the type of commodity and the degree of competition among suppliers in the market. The higher the degree of competition, the more incentive there is for traders to offer trade credit as a marketing tool to sell their commodities. Moreover, the more perishable the commodity is, the more incentive there is for traders to offer trade credit to reduce storage period and potential damage. These factors explain why there is more trade credit offered to enterprises in certain sub-sectors than others.

b) Relations with Customers

Goods and services produced by the enterprises in the sample were largely sold in the domestic markets either to immediate neighbors or to several customers (Tables A12 and A13). Entrepreneurs sold their manufactured goods, services or merchandise almost on daily basis.

With respect to the form of sale, the majority of the entrepreneurs sold for cash (88 percent) and less than one fifth offered credit to their customers (16 percent), while only one reported case sold on consignment. Surprisingly, a very small share of the entrepreneurs (5 percent) took advance payment from their customers. This is contrary to expectation since advance payment is a typical source of financing, particularly for manufacturing enterprises.

Table 6. Form of Sales to Clients by Size

	<u>Sole</u>	<u>Micro</u>	<u>Small</u>
Cash	91%	88%	81%
Credit	10%	15%	26%
Advance Payment	6%	4%	7%
Consignment	0%	0%	2%

The terms and conditions of the customer advance contracts, nonetheless, were examined (Table A13). The value of the credit reached on average JD250 per transaction (median JD60), which represented about half of the total value of the transaction. Businesses took customer advances as often as 3 times on average per month, for an average period of 3 weeks. Half of the entrepreneurs reported providing their customers with security in the form of a signed promissory note with the amount received and the promise to deliver the product at the end of the term.

Typically, the nature of the product and its value directly affect the method of payment. Most of the manufacturing products, and particularly custom-made orders, require advance payment as a guarantee and deposit to allow the entrepreneur to purchase input materials. Traders have less customer advances flowing into their enterprises because the nature of their sales are generally not customized.

C. The Demand for Informal Loans

The demand for informal loans by entrepreneurs in the sample was significant (Table A14). Almost half of the entrepreneurs had requested an informal loan at one time, while only one third used an informal loan over the past year. Loan quantity rationing, i.e. borrowers being rejected loans completely, was not reported, save for a few cases.

The source of informal loans over the past year was largely from family and friends. Only a few entrepreneurs reported having borrowed from colleagues, while no one reported borrowing from moneylenders. Informal loans were typically given in a matter of days for periods ranging from 6 to 3 months. Entrepreneurs used on average 2 loans over the past year where the loan average value was JD 1500 (median

Table 7. Demand for Informal Loans by Size, Sector, Location, and Gender

	<u>Sole</u>	<u>Micro</u>	<u>Small</u>
Ever Requested an informal Loan	38%	45%	43%
Used an informal Loan Last Year	21%	34%	33%
	<u>MNFC</u>	<u>SRV</u>	<u>TRD</u>
Ever Requested an informal Loan	49%	39%	36%
Used an informal Loan Last Year	39%	28%	20%
	<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
Ever Requested an informal Loan	42%	43%	51%
Used an informal Loan Last Year	30%	31%	36%
	<u>Men</u>	<u>Women</u>	
Ever Requested an informal Loan	41%	47%	
Used an informal Loan Last Year	29%	34%	

JD500). This is not surprising, given that microentrepreneurs demand smaller loan amounts and have a smaller capacity for repayment.

Most informal loans were unsecured and provided free of interest charge except in a few cases. This is typical for informal loans as it is socially and religiously unacceptable to charge interest on these types of loans or hold collateral. Personal relations allow lenders to make judgements about the creditworthiness of their borrowers and induce borrowers to fulfill the repayment promise. Size, sector, location, and gender differences indicated that entrepreneurs in the manufacturing sector, those in Zarqa, and those operated by women, have a higher demand for informal loans than their counterparts (Table 7).

D. The Demand for Formal Loans

The demand for formal loans was significantly limited (Table A15). About two thirds of the entrepreneurs in the sample (67 percent) never requested formal loans. Interestingly, the primary reason provided by about half of the entrepreneurs (45 percent) for never requesting a formal loan was availability of other sources. The second most frequently reported reason by about one fifth the entrepreneurs (21 percent) was fear of inability to repay, followed again by about fifth of the entrepreneurs (18 percent) who reported religious beliefs as their reason. Only a few entrepreneurs reported that they did not have sufficient collateral (4 percent), or the interest was high (6 percent), or banking procedures were difficult (2 percent), or they did not have any banking experience (5 percent). It is important to note that among the entrepreneurs who had requested a formal loan in the past, about one fifth (23 percent) had their loan applications rejected, i.e. loan quantity rationed. The reasons a few entrepreneurs were rejected were because they did not have sufficient collateral, or banking experience, or their project was not accepted by the bank.

Consistent with the information reported on the loan requests, and the incidents of loan rejections, about one fourth of the entrepreneurs reported having used at least one formal loan in the past (Table A16). Roughly, only half of those (12 percent) reported using formal loans over the past year. Actually, entrepreneurs reported using one loan on average. Banks were the primary source for formal loans with a few exceptions (2 percent) who were associated with the NGO Queen Alia Fund.

Most of the reported loans (56 percent) were working capital loans, however, some (35 percent) were consumer loans, and a few (9 percent) fixed assets loans. In contrast to the incidents of loan quantity rationing, i.e. entrepreneurs who reported being rejected their loan applications, very few borrowers (5 percent) were loan size rationed, i.e. unable to borrow the amounts they requested. Loan approvals and disbursements were reported to take from two weeks to a month.

Average loan amounts, as expected, were larger than the informal loans reported by the entrepreneurs. Borrowers reported an average loan amount over JD 7000 (median JD3000). Loans were generally granted for periods ranging from one to almost three years at average interest rates of about 14 percent.²⁰ Entrepreneurs reported paying monthly installments of about JD 470 on average (median JD162). Most notably, however, all loans given to SMEs were highly secured by collateral with values averaging about 183 percent of the loan amount (median 100 percent). Interestingly, quite a few entrepreneurs reported securing their loans with a guarantor (44 percent), real estate (23 percent), bank accounts (14 percent), business licence (12 percent), or more than one collateral (5 percent).

Table 8. Demand for Formal Loans by Size, Sector, Location, and Gender.

	<u>Sole</u>	<u>Micro</u>	<u>Small</u>
Never Requested a Formal Loan	79%	66%	54%
Used a Formal Loan Last Year	7%	14%	15%
	<u>MNFC</u>	<u>SRV</u>	<u>TRD</u>
Never Requested a Formal Loan	64%	65%	74%
Used a Formal Loan Last Year	11%	14%	13%
	<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
Never Requested a Formal Loan	65%	69%	76%
Used a Formal Loan Last Year	13%	6%	15%
	<u>Men</u>	<u>Women</u>	
Never Requested a Formal Loan	69%	62%	
Used a Formal Loan Last Year	12%	13%	

Finally, size, sector, location, and gender differences indicated that, on the one hand, more entrepreneurs working on their own, those in the trade sector, those outside Amman, and men entrepreneurs, never requested a formal loan. On the other hand, micro and small scale entrepreneurs, those in the service and trade sectors, and those in Amman and Zarqa, have a higher demand for formal

²⁰ Interest rate charges reported by entrepreneurs include fees. Entrepreneurs generally did not know how much was the interest rate and how much were the fees.

loans than their counterparts (Table 8).

E. Significance of the Current Sources of Financing the Business

In summary, the alternative sources of financing current operations of the business seem to weigh more heavily on the use of cash or retained earnings (Tables A17-A21). Although about one third of the entrepreneurs used trade credit and informal loans, the total average value of formal loans was the highest in spite of the small percent of entrepreneurs who used formal loans over the past year. Interestingly, not all microentrepreneurs relied on external sources of finance. Just about less than half of the entrepreneurs (43 percent) did not report drawing on any source of external finance, whether formal or informal. The use of the alternative sources of financing seemed to vary to some extent by size of the enterprise, sector of operation, location, and gender. Most notably, fewer sole operators used external finance and those who did used smaller amounts than micro and small scale entrepreneurs. Although the frequency of using formal loans varied across the three size categories, the average value of formal loans to sales was somewhat similar. This implies that the size of these loans is a function of their capacity for repayment.

As expected, enterprises in the trade sector used more trade credit than enterprises in the other sectors. Moreover, enterprises in the manufacturing sector used small amounts of formal loans than those in the other sectors. With respect to location, enterprises in Amman and Zarqa had a higher share of entrepreneurs using formal loans as well as larger amounts. The total value of formal loans to sales, however, was again similar across the three regions. Finally, gender of the entrepreneurs implied some variations in the use of trade and informal credit as men entrepreneurs had larger reported amounts than women entrepreneurs.

The sources of finance based on the entrepreneurs' preference indicate the following. First, the primary source of financing used by most entrepreneurs in the sample was cash or retained earnings. Second, trade credit in the form of supplier credit and customer advances was the second significant source used by all enterprises. Third, the average amounts used by the entrepreneurs, across the three size categories and sectors of operation, reflected significantly higher values of formal loans compared to informal loans. Loan quantity and size rationing were found to be a problem for some entrepreneurs, but not the majority, contradictory to popular belief of discrimination against most small businesses.

The observation of entrepreneurs often self-selecting themselves out of the formal credit markets was reported to be based on their fear of inability of repayment, availability of other sources, religious beliefs, or regarding market interest rates as being too high.

The sources of finance may be characterized in a ranking order starting with the most to the least frequently utilized. First, is retained earnings as the overwhelming source; second, are customer advances and supplier credit; third, comes formal loans from commercial banks; and fourth informal loans from family and friends. This preliminary ranking order falls in line with the pecking order theory of finance.²¹

F. Significance of the Existing Saving Channels

Entrepreneurs in the sample were found to participate in various savings channels. Formal channels consisted of accounts in commercial banks. The informal channels were represented by the “gam’iyat” or RoSCAs and the informal collectors. Tables A22-A23 present the share of entrepreneurs saving with formal institutions, informal groups and informal collectors.

Among the most common savings channels were the commercial banks. Roughly half of the entrepreneurs hold at least one account with one of the commercial banks in the country. On average, entrepreneurs hold one checking, savings, or fixed deposit account. Moreover, about one fifth of the entrepreneurs use electronic cards. The majority of those (77 percent) use the Automated Teller Machine (ATM) card, while a few use only credit cards (8 percent), and some (15 percent) use both credit cards and ATMs. The average limit on the credit cards was about JD3000.

²¹ The pecking order theory of finance suggests that “Safety first,” i.e. not losing ownership control of the firm, is the principle that is used to rank the firm's preferred sources of financing in priority order (Myers, 1984). It is argued that firms choose to finance investments first from internally generated funds since this represents the safest source of financing. External sources of financing, therefore, are ranked second.

“Gam’iyat” or RoSCAs were the second most widely used savings channel among the entrepreneurs. About one fourth of the SMEs participated in these groups. On average, entrepreneurs participated in one group which comprised of 14 members on average, 11 of whom were women. These groups had been rotating for an average of 7 months where members contributed on average twice per month. The average amounts contributed to these groups ranged generally from JD240 to JD450 per year per member. The primary reason the majority of the entrepreneurs (71 percent) reported for participating in “gam’iyat” was compulsory savings. Only one fifth (20 percent) joined to access a loan. The use of alternative savings mechanisms was reported by few entrepreneurs (5 percent) who saved money with informal collectors. Moreover, few others (8 percent) reported receiving remittances. Finally, about a fourth of the entrepreneurs reported holding any type of insurance.

Table 9. Demand for Savings Services by Size, Sector, Location, and Gender.

	<u>Sole</u>	<u>Micro</u>	<u>Small</u>
Holds an Bank Account	40%	45%	74%
Participates in Informal Groups	32%	22%	24%
	<u>MNFC</u>	<u>SRV</u>	<u>TRD</u>
Holds an Bank Account	44%	49%	56%
Participates in Informal Groups	31%	18%	24%
	<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
Holds an Bank Account	48%	50%	45%
Participates in Informal Groups	19%	40%	36%
	<u>Men</u>	<u>Women</u>	
Holds an Bank Account	49%	46%	
Participates in Informal Groups	21%	31%	

In summary, the array of saving channels and the different concentrations of entrepreneurs by size category, sector, location, and gender, among these channels indicates very important findings. Monetary savings are very important to entrepreneurs. Entrepreneurs draw upon formal channels, mainly commercial banks, as well as on informal channels, such as RoSCAs, to deposit their savings (Table 9). More small scale entrepreneurs and those in the trade sector use bank deposits, while more women entrepreneurs, those located outside Amman, those in the manufacturing sector, and sole operators participate in RoSCAs.

3. Potential Demand for Loans and other Financial Services

An assessment of the potential demand for individual formal loans reflected that almost half of the entrepreneurs (43 percent) are interested in gaining access to new loans (Table A24). The majority of those entrepreneurs (65 percent) indicated that they would request working capital loans, a few suggested they would demand fixed asset loans (18 percent), and a few others (17 percent) indicated that they were interested in consumer loans. The average potential loan size reported by the entrepreneurs reached almost JD6000 (median JD5000), for an average term of 3 years. As typical, microentrepreneurs' willingness to pay for potential financial services was lower than their effective demand. This was evident as the average interest rate the entrepreneurs indicated they were willing to pay was 6 percent, with 1 percent fees, and additional 2 percent for loan insurance. The majority of the entrepreneurs indicated that they would be willing to use their business licence as collateral, or have a guarantor, a few even indicated they could secure their loans with real estate, land, machinery, or inventory.

Potential demand for group loans was also investigated in the survey (Table A25). Entrepreneurs were less interested in group loans as only about a fourth (23 percent) reported potential interest. Interestingly, though, the majority of those were willing to repay for others in case of default which is the typical peer monitoring adopted by most group lending technologies. Entrepreneurs also indicated that they were willing to attend on average two meetings per month and pay one loan installment. Similar to the potential demand for individual loans, the average amount of group loans was around JD5600 (median JD3000), for an average term of 3 years. Lastly, the majority of the entrepreneurs interested in group loans (68 percent) were willing to save with their groups.

Table 10. Potential Demand for Financial Services by Size, Sector, Location, and Gender.

		<u>Sole</u>	<u>Micro</u>	<u>Small</u>
Potential Demand for Formal Loans	39%	40%	61%	
Potential Demand for Group Loans		19%	21%	31%
		<u>MNEC</u>	<u>SRV</u>	<u>TRD</u>
Potential Demand for Formal Loans	53%	49%	24%	
Potential Demand for Group Loans		28%	22%	14%
		<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
Potential Demand for Formal Loans	43%	50%	33%	
Potential Demand for Group Loans		25%	21%	9%
		<u>Men</u>	<u>Women</u>	
Potential Demand for Formal Loans	47%	41%		
Potential Demand for Group Loans		27%	16%	

More small scale enterprises, those in the manufacturing sector, those located in Irbid, and men entrepreneurs, had potential demand for individual loans than their counterparts (Table 10). Surprisingly, men entrepreneurs had higher potential demand for group loans than women entrepreneurs. Moreover, small scale entrepreneurs, those in the manufacturing sector, and those located in Amman, had a higher potential demand for group loans than their counterparts.

With respect to other financial services, one fourth of the entrepreneurs, excluding those who currently use electronic cards, reported potential interest in using these types of financial products (Table A22). The majority of these entrepreneurs (74 percent) are interested in the ATM cards, while some (20 percent) are interested in credit cards with an average limit close to JD1500. As expected, however, when assessing the willingness to pay for financial services, many microentrepreneurs believed that these services should be free. This belief is evident as only one third of these entrepreneurs interested in using electronic cards reported that they were willing to pay a fee for such type of service.

4. Problems and Constraints

Entrepreneurs are typically perceived to face problems and constraints limiting their growth and expansion. Most of these problems are often attributed to lack of finance. Problems outside financial markets, however, represent important barriers to entrepreneurs in many environments. In our sample, first, the most significant problem reported by microentrepreneurs was weak demand (29 percent), followed by problems with customers (16 percent), and domestic competition (9 percent) (Table A26)²². Insufficient financing was reported as the most significant constraint by only a few entrepreneurs (8 percent). Second, entrepreneurs reported that problems with clients, weak demand, domestic competition, and marketing were their second most significant problem. Again, finance was reported as a second most serious problem by only a few entrepreneurs. Entrepreneurs were further asked to assess the competition in the market and about half of them reported having over 5 competitors (Table A27). These evaluations, although subjective and based on the entrepreneurs' initial responses, serve to highlight the point that finance is not necessarily the bottle neck as widely

²² Entrepreneurs were asked to list their two most significant problems in a descending order, with no suggestions offered by the interviewers.

perceived by many small business advocates, including governments and donors. Finally, about one third of the entrepreneurs were members of business associations and those who were not knew about them and were interested in joining one.

5. Summary of the Demand for Loans

Table 11 presents a summary of the effective and potential demand for the alternative loans, and their terms and conditions. The effective demand for loans over the past year indicates that the principal sources of external funds were trade credit and formal loans.

While trade credit was used in small amounts close to JD200 on average twice per month, the use of formal loans was a lump sum of JD3000 that was borrowed once a year. Potential demand indicated that entrepreneurs

are interested in larger sums of about JD5000 for individual loans and JD3000 for group loans. Small trade credit and informal loans were used for periods of 1 to 3 months, while formal loans were used for periods of one and a half years. Entrepreneurs reported potential interest in even longer term loans up to almost 3 years.

The majority of the entrepreneurs potentially interested in individual formal loans reported being able to provide one or more type of security. As expected, the willingness to pay for formal loans is way below market prices and the effective interest rates entrepreneurs actually pay. Those entrepreneurs using trade credit for short periods of time at 10 percent mark-up or implicit interest, are effectively paying very high interest rates. Therefore, more weight should be attached to the effective interest rates entrepreneurs are paying which allow institutions to cover their costs and remain sustainable.

Table 11. Terms and Conditions of the Effective and Potential Loan Demand by Entrepreneurs^a.

	<u>TL</u>	<u>IL</u>	<u>FL</u>	<u>PFL</u>	<u>PGL</u>
% of Sample	32%	31%	12%	43%	23%
# of Loans Last Year	24	2	1	n.a.	n.a.
Value of Loan (JD)	185	500	3000	5000	3000
Interest (%.)	10%	0	13%	6%	6%
Maturity (months)	1	3	20	33	30
% providing Collateral	42%	0	98%	88%	n.a.

Note a: Amounts reported are based on the median statistics for
 TL: trade loans; IL: informal loans; FL: formal loans;
 PFL: potential individual loan demand;
 PGL: potential group loan demand.

III. CHARACTERISTICS OF THE POTENTIAL ENTERPRISE SURVEY

1. Overview of The Survey

To examine the demand for alternative financial services and entrepreneurial potential in Jordan, a household survey was carried out in April of 1998. The sample included a random group of individuals in the three cities of Amman, Irbid, and Zarqa. Random blocks were provided by the Department of Statistics, with the total number of households in each block. The survey methodology entailed visiting households randomly within each block and interviewing an adult male or female in these households. Typically, the adults were the head of the household, or the spouse. The survey, in addition to generating a sample of 216 potential entrepreneurs, generated a profile for an another group. This was the group of individuals who were willing to be interviewed, however had no interest in starting their own enterprises. The majority of this group were educated (83 percent) middle aged adults (36 years), responsible for households with an average of 7 individuals, and largely women (75 percent). Moreover, there was a small group of household who were not willing to be interviewed and therefore generated a refusal group. Given the objective of the AMIR project in reaching 50 percent women microentrepreneurs as part of their clientele, the potential entrepreneur sample had a similar gender distribution. In addition, the total number of microentrepreneurs interviewed in each region corresponded roughly to the population distribution in the three cities where by half of the sample was in Amman, one third in Irbid, and one fifth in Zarqa.

A. Potential Entrepreneurship Capacity

The potential entrepreneurs survey generated mainly three categories of respondents, as mentioned above. These were “refused to answer”, “not interested”, and “potential entrepreneurs”. Table 12 presents the distribution of these categories in each area under the study.

The distribution indicates that, first, the refusal rate was understandably significant, particularly in Amman. Second, the share of individuals not interested in starting-up their own enterprises represented over a third of the sample. The potential entrepreneurs group represented only about a fifth of the sample in each region. Using the department of statistics data on the total number of households in each region, and the percentage of those with monthly income of JD200 or less, generates a rough figure of the number of potential entrepreneurs in each region. This implies that there are at least about 15,000 potential entrepreneurs in Amman, close to 18,000 potential entrepreneurs in Irbid, and close to 10,000 potential entrepreneurs in Zarqa. It is noteworthy to mention that our potential entrepreneurs sample represents only 0.7 percent of the lower income household group in Amman, and 0.4 percent in each of Irbid and Zarqa.

Table 12. Potential Entrepreneurship Capacity by Location

	<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
# of Households Sampled	746	279	158
% of Households Refused to Answer	56%	27%	39%
% of Individuals not Interested	29%	41%	38%
% Potential Entrepreneurs	15%	25%	23%
% Current Entrepreneurs	0	7%	0
Total # of Households	296101	152046	100713
% with Monthly Income ~ JD200	35%	47%	43%
Total # of Potential Entrepreneurs	15,545	17,865	9,960

B. Characteristics of the Potential Enterprises

The potential enterprise survey explored the particular sub-sectors of interest to the respondents (Table B1). Interestingly, a fairly distributed sample among the manufacturing (31 percent), services (30 percent), and trade (32 percent) sectors of the economy was found. A few respondents were interested in agriculture (3 percent) or were undecided (4 percent). Similar to the enterprise survey the sub-sectors which represent the more dynamic microenterprise activities include garment manufacturing, handicraft production, food processing, wood processing, metal production, general services, hairdressers, restaurants and catering, and retail and wholesale trade. As mentioned earlier, the distribution of the sample across the geographic areas in the country, based on the population concentration, resulted in interviewing half of the sample in Amman (51 percent), one third (32 percent) in Irbid, and almost one fifth (17 percent) in Zarqa. The majority of the respondents (68 percent) were unemployed, one third (28 percent) were private sector employees, and a few (4

percent) were public sector employees. Their spouses were largely not going to play any role in their businesses. Moreover, almost two thirds of the respondents (68 percent) were interested in operating their business from stores and the rest preferred to work from home (24 percent), or just where business would take them, i.e. ambulant (7 percent).

C. Characteristics of the Potential Entrepreneurs

The gender composition of the sample was equally distributed between women and men (Table B2). Most of the respondents had at least basic education (31 percent) or had finished high school level or higher (63 percent). The typical 33 years old potential entrepreneur, moreover, was responsible for a household with an average of 6 individuals. The majority of the individuals (56 percent) reported that there was another working individual in the family who earned JD195 per month on average. Over half of the respondents (57 percent) owned their homes and the rest rented. Finally, almost every house (98 percent) was connected to electricity. These figures indicate that the respondents, although were generally classified among the low income population group in the country, they had reasonable housing conditions.

2. Significance of the Alternative Financial Channels

The sources of funding and the savings channels potential entrepreneurs draw upon are various. Similar to the sources entrepreneurs use, these fall into informal and formal networks. As indicated earlier, the informal channels that prevail in Jordan include family and friends and “gam’iyat” (RoSCAs); and the formal financial are primarily represented by commercial banks and a few NGOs.

A. Potential Investment Capital

Potential entrepreneurs were asked to estimate the value of their initial investment and indicate the sources of funds which they would seek (Table B3). On average, respondents suggested that they would require close to JD5000, on average (median JD3000), for their initial investment. Almost half (43 percent) indicated they would seek bank financing, while one third indicated they would borrow from NGOs (27 percent), and a fifth (21 percent) suggested they would resort to family and friends.

Only few respondents (7 percent) were willing to invest their own personal savings into new investments. The majority who indicated they would seek formal external sources of finance, both banks and NGOs, reported that they would request about 71 percent of the total value of their investment from these sources.

Only two potential entrepreneurs indicated they were interested in a loan from their suppliers for investment purposes. These findings are not typical of the initial investment behavioral pattern for microenterprises. The nature of the survey, however, is exploratory which probably induces some respondents to indicate that they are willing to start a project if there are funds available without committing their own resources.

Figures in Table 13 indicate that the potential sources of investment capital vary to a small extent by sector of operation, location, and gender. These statistics indicate, on the one hand, that a higher percent of the potential entrepreneurs interested in the service and trade sectors, those in Amman and Zarqa, and men would seek bank loans as a source of financing their business ventures. On the other hand, potential entrepreneurs in the manufacturing sector and women indicated that they would seek more NGO financing.

Table 13. Potential Sources of Investment Capital by Sector, location, and Gender

	<u>MNFC</u>	<u>SRV</u>	<u>TRD</u>
Savings	10%	3%	6%
Family & Friends 24%	25%	19%	
Bank Loan	28%	56%	43%
NGO Loan	37%	14%	29%
Supplier Loan	0%	2%	4%
	<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
Savings	5%	11%	3%
Family & Friends 22%	20%	19%	
Bank Loan	44%	39%	46%
NGO Loan	28%	27%	27%
Supplier Loan	1%	3%	5%
	<u>Men</u>	<u>Women</u>	
Savings	4%	10%	
Family & Friends 19%	22%		
Bank Loan	55%	30%	
NGO Loan	18%	37%	
Supplier Loan	5%	0%	

D. The Effective Demand for Informal Loans

The demand for informal loans by potential entrepreneurs in the sample was significant to some extent (Table B4). Almost half of the respondents (40 percent) in the sample had requested an informal loan at one time, while only one third (29 percent) used an informal loan over the past year. A few cases (9 percent) of loan quantity rationing, i.e. borrowers being rejected loans completely, were reported.

The source of informal loans over the past year was largely from family and friends, as typical. Only a few entrepreneurs reported having borrowed from colleagues, while no one reported borrowing from moneylenders. Informal loans were given in a matter of days, as usual, for periods generally ranging from 6 to 12 months. The respondents in the potential entrepreneurs survey reported that they used on average 4 loans (median 2) over the past year where the average loan value was JD380 (median

JD200). This is noticeably smaller than the loan amounts reported by the microentrepreneurs in the enterprise survey. Given that these individuals were largely unemployed or employees with limited salaries, however, explains their limited demand for larger loan amounts that they may not be able to repay. Again, most informal loans were unsecured and provided free of interest charge. Statistics in Table 14 indicate that potential sector, location and gender do not carry significant variations in the respondents' use of informal loans.

C. The Effective Demand for Formal Loans

The potential entrepreneurs' effective demand for formal loans was significantly limited (Table B5). Over two thirds of the respondents (78 percent) never requested formal loans. The primary reason provided by about half of the potential entrepreneurs (41 percent) for never requesting a formal loan was fear of inability to repay. The other most frequently reported reasons were religious beliefs (13 percent), insufficient collateral (13 percent), availability of other sources (11 percent), and high interest (10 percent). Similar to the findings in the enterprise survey, among the potential entrepreneurs who had requested a formal loan in the past, almost one fourth of the respondents (23 percent) had their loan applications rejected, i.e. loan quantity rationed. The reasons these entrepreneurs were rejected included not having sufficient collateral (77 percent), or financial statements (15 percent), or any banking experience (8 percent).

Table 14. Demand for Informal Loans by Sector, Location, and Gender.

	<u>MNFC</u>	<u>SRV</u>	<u>TRD</u>
Ever Requested an informal Loan	45%	34%	43%
Used an informal Loan Last Year	36%	25%	29%
	<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
Ever Requested an informal Loan	34%	46%	46%
Used an informal Loan Last Year	30%	30%	24%
	<u>Men</u>	<u>Women</u>	
Ever Requested an informal Loan	38%	42%	
Used an informal Loan Last Year	29%	29%	

Consistent with the information reported on the loan effective demand, and the occurrence of loan quantity rationing, about one fifth of the potential entrepreneurs (18 percent) reported having used at least one formal loan in the past (Table B6). Only a third of those (6 percent), however, reported using formal loans over the past year. Moreover, respondents reported using an average of one loan. Banks were the primary source for over half of the respondents (62 percent), and over a third (38 percent) reported accessing formal loans from NGOs, mainly Save the Children Foundation.

Most of the loans reported (61 percent) were consumer loans, a third (31 percent) were fixed assets loans, and a few (8 percent) were working capital loans. Similar to the enterprise survey results, very few borrowers (8 percent) were being loan size rationed, i.e. unable to borrow the amounts they requested. Loan approvals and disbursements were reported to take generally from two weeks to a month.

Average loan amounts were larger than the informal loans, however they were smaller than loans reported by the entrepreneurs in the enterprise survey. Borrowers reported borrowing an average loan amount over JD1200 (median JD450). Loans were generally granted for periods ranging from one to two years at average interest rates of 12 percent. Potential entrepreneurs reported paying monthly installments of about JD50 on average (median JD40). Interestingly, however,

most of the consumer loans seem to have been secured by collateral with values averaging just about 100 percent of the loan amount. These collateral values seem particularly reasonable when compared with 183% collateral value that was reported by the entrepreneurs. The majority of the respondents in the potential enterprise survey reported securing their loans with a guarantor (77 percent), a few with real estate (8 percent), or bank accounts (8 percent), or more than one collateral (8 percent). Finally, figures in table 15 indicate that a larger share of the potential entrepreneurs interested in the manufacturing and service sectors, those residing in Amman, surprisingly, and women, had never

Table 15. Demand for Formal Loans by Sector, Location, and Gender

	<u>MNFC</u>	<u>SRV</u>	<u>TRD</u>
Never Requested a Formal Loan	82%	83%	71%
Used a Formal Loan Last Year	5%	8%	6%
	<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
Never Requested a Formal Loan	83%	73%	70%
Used a Formal Loan Last Year	5%	9%	3%
	<u>Men</u>	<u>Women</u>	
Never Requested a Formal Loan	75%	80%	
Used a Formal Loan Last Year	5%	7%	

requested formal loans.

D. Significance of the Existing Saving Channels

Potential entrepreneurs in the sample were found to participate in various savings channels. Formal channels consisted of accounts in commercial banks and informal channels were represented by the “gam’iyat” or RoSCAs and the informal collectors. Tables B7-B8 present the share of entrepreneurs saving with formal institutions, informal groups and informal collectors.

Among the common savings channels were the commercial banks. Roughly one fourth of the respondents hold at least one account with one of the commercial banks in the country. On average, respondents hold one checking or savings account. None of the respondents reported having fixed deposits. Moreover, about one tenth of the respondents reported using electronic cards which were exclusively ATM cards; none of the respondents reported using credit cards.

“Gam’iyat” or RoSCAs were the most widely used savings channel among the respondents in the sample (Table B8).

About one third of the potential entrepreneurs participated in these groups. On average, respondents participated in one group which comprised of 16 members, 14 of whom were women. These groups had been rotating for an average of 7 months where members contribute to the *pot* on average once per month. The amounts contributed to these groups averaged about

JD230 per year per member. The primary reason half of the potential entrepreneurs (53 percent) who participate in these groups reported for joining “gam’iyat” was compulsory savings, with over a third (36 percent) interested in accessing a loan. Only few respondents were members of “gam’iyat” in order to hold non-interest bearing savings or to help others. The use of alternative savings channels was reported by a couple of respondents (1 percent) who saved money with informal collectors.

Table 16. Demand for Savings Services by Sector, Location, and Gender

	<u>MNFC</u>	<u>SRV</u>	<u>TRD</u>
Holds an Bank Account	16%	25%	31%
Participates in Informal Groups	39%	30%	34%
	<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
Holds an Bank Account	25%	21%	27%
Participates in Informal Groups	32%	37%	38%
	<u>Men</u>	<u>Women</u>	
Holds an Bank Account	30%	18%	
Participates in Informal Groups	22%	48%	

Moreover, few others (6 percent) reported receiving remittances. Finally, only a few of the respondents (12 percent) reported holding any type of insurance.

In summary, the array of savings channels used by potential entrepreneurs indicates very important findings. Informal groups are quite popular and are used in particular by women, those individuals interested in investing in the manufacturing sectors, and those residing outside Amman, although they are still common in Amman (Table 14). The use of formal bank savings is more common among men than women, and those interested in the trade sector.

3. Potential Demand for Loans and other Financial Services

An assessment of the potential demand for individual formal loans reflected that the majority of the potential entrepreneurs (79 percent) are interested in gaining access to loans (Table B9). The majority of the respondents indicated that they would demand working capital loans (45 percent) or fixed asset loans (48 percent), and only a few (7 percent) indicated that they were interested in consumer loans. The average potential loan size reported by the respondents reached almost JD4500 (median JD3000) for an average term of almost 4 years (median 3 years). Again, willingness to pay for potential loans is lower than what the effective demand indicates; the suggested 5 percent average interest rate the respondents reported they were willing to pay, with 1 percent fees, and additional 2 percent for loan insurance in some cases, is lower than the effective interest rates they are currently paying. About half of the potential entrepreneurs (46 percent) indicated that they did not have any collateral, while one third (28 percent) indicated that they had a guarantor, and even a few indicated they could secure their loans with real estate (15 percent), land (3 percent), machinery (1 percent), or inventory (1 percent).

Potential demand for group loans was much smaller than the potential demand for individual loans. Less than a fifth of the potential entrepreneurs (14 percent) indicated that they were interested in group loans. Interestingly, though, the majority of those (73 percent) were willing to repay for others in case of default. Respondents indicated that they were willing to attend on average one meeting per month and pay two loan installments. Similar to the potential demand for individual loans, the average amount of group loans was around JD3600 (median JD2000) for an average term of about 3 years (median 2 years). Lastly, the majority of the potential entrepreneurs interested in group loans (93 percent) were willing to save with their groups.

Table 17. Potential Demand for Financial Services by Sector, Location, and Gender.

	<u>MNFC</u>	<u>SRV</u>	<u>TRD</u>
Potential Demand for Formal Loans	69%	87%	81%
Potential Demand for Group Loans		12%	10%
			19%
	<u>Amman</u>	<u>Irbid</u>	<u>Zarqa</u>
Potential Demand for Formal Loans	83%	74%	76%
Potential Demand for Group Loans		15%	14%
			11%
	<u>Men</u>	<u>Women</u>	
Potential Demand for Formal Loans	82%	76%	
Potential Demand for Group Loans		20%	7%

Potential sector of operation, location and gender indicated that male respondents, those interested in the trade sector and those residing in Amman have a higher potential demand for formal individual loans than their counterparts (Table 16). Surprisingly, and similar to the results in the enterprise survey, male respondents and those interested in the trade sector have a higher demand for group loans than female respondents and those interested in manufacturing and service sectors.

With respect to other financial services, about half of the potential entrepreneurs reported potential interest in using these types of financial products (Table B7). The majority of those (88 percent) were interested in the ATM cards, while a few (10 percent) were interested in credit cards with an average limit of about JD200. Moreover, most of the respondents (78 percent) indicated that they were willing to pay a fee for such a type of service.

4. Problems and Constraints

Prior to establishing enterprises, many potential entrepreneurs perceive that they face problems and constraints limiting their entry into the market. Most of these problems are often attributed to lack of finance. Problems outside financial markets, however, represent important barriers to potential entrepreneurs in many environments. In the potential entrepreneur sample, first, the most significant problem reported by the respondents was weak demand (15 percent). This was followed by costly financing (13 percent), insufficient financing (12 percent), marketing (12 percent), problems with customers (9 percent), and government procedures (8 percent) (Table B11). Some potential entrepreneurs (18 percent) actually reported not anticipating any problems. Moreover, half of the potential entrepreneurs could not specify a second problem. Finally, potential entrepreneurs were asked to assess the competition in the market and about half of them indicated that they foresee having less than 5 competitors (Table B12).

5. Summary of the Demand for Loans

A summary of the effective and potential loan demand reported by potential entrepreneurs and the terms and conditions associated with these loans is presented in table 17.

Interestingly, both the informal and formal loans used by potential entrepreneurs over the past year were limited in size. These formal loans, seem particularly quite small when compared with the loans reportedly used by entrepreneurs. It is noteworthy to highlight the very small share of

potential entrepreneurs who used formal loans over the past year. The term of formal loans used by potential entrepreneurs again was shorter than that reported by entrepreneurs. Potential entrepreneurs, though, indicated a potential demand for larger and longer term loans, similar to what entrepreneurs suggested. Half of the potential entrepreneurs, however, indicated that they could not provide any type

Table 17. Terms and Conditions of the Effective and Potential Loan Demand by Potential Entrepreneurs ^a.

	<u>IL</u>	<u>FL</u>	<u>PFL</u>	<u>PGL</u>
% of Sample	29%	6%	79%	14%
# of Loans Last Year	2	1	n.a.	n.a.
Value of Loan (JD)	200	450	3000	2000
Interest (%.)	0	11%	5%	5%
Maturity (months)	2	10	36	24
% providing Collateral	0	100%	54%	n.a.

Note a: Amounts reported are based on the median statistics for
 IL: informal loans; FL: formal loans;
 PFL: potential individual loan demand;
 PGL: potential group loan demand.

of collateral to secure individual loans.

IV. DETERMINANTS OF THE DEMAND FOR FINANCIAL SERVICES AMONG MICRO AND SMALL SCALE ENTERPRISES IN JORDAN

1. Determinants of the Effective Demand for Financial Services

Despite the numerous projects and policies initiated to assist micro and small scale enterprises over the past couple of decades, there is a lack of understanding about the entrepreneur's effective demand for alternative financial services under the circumstances found in many developing countries. Most of the literature that describes the sources of finance for micro and small scale enterprises in low income countries across various sub-sectors is based on a descriptive rather than a diagnostic framework (e.g. Cortes et al, 1987.; Levy, 1993; McLeod, 1991; Kilby et al., 1984). Descriptive studies often provide reports of field surveys of various sub-sectors in developing countries. The identification of finance as the primary obstacle to develop small scale enterprises in some of these studies, however, is highly rhetorical when based on the entrepreneurs' subjective responses (e.g. Levy, 1993). Entrepreneurs when asked about their access to formal finance typically respond by claiming a need for credit at reasonable prices. These subjective questions are rarely specific to show how the entrepreneur would respond to a rigorous subset of loan terms and conditions. Under increasing rigorous terms and conditions the demand for credit would decline.

A critical problem in the assessment of small enterprise sector studies is that they consider formal financial contracts that entrepreneurs use as being exogenously predetermined, and not a function of the overall mix of financial services entrepreneurs choose to use and the particular sectors within which they operate. An entrepreneur's use of alternative financial services is determined by a number of factors. These include characteristics of the enterprise, attributes of the entrepreneur, rates of return, interest rates, transaction costs of alternative sources of financing, and the respective shares of these financial assets and liabilities in total expenditures over the production period (Baydas, 1993). Size of the enterprise influences the financial behavior of the entrepreneur since larger scale affects the costs and bargaining power of accessing external financial services. Sector of operation directly

impacts the physical asset composition and volatility of earnings which influence the financial structure. Furthermore, investments in physical capital, i.e. tangible assets, allow a firm to provide collateral and in turn access debt financing easier. Finally, among the characteristics of the enterprise and its external relationships, the nature of the input and output linkages found among the various economic agents--producers, traders and consumers--also affect the financial contracts that are available to an entrepreneur.

A set of entrepreneurial characteristics influence the financial behavior of the entrepreneur managing the firm. These include education level and the degree to which the entrepreneur is informed, age and risk taking attitude. Entrepreneurs who are better informed and have completed higher levels of education are likely to use more debt finance than their less informed counterparts. Older entrepreneurs, however, are likely to be more risk averse and less interested in using external finance. The entrepreneur's attitude towards risk suggests that risk averse entrepreneurs use less debt finance than risk taking entrepreneurs.

This section analyzes the differences found across sectors in the sources of finance used by micro and small scale enterprises in Jordan. An examination of the entrepreneur's effective demand for the various sources of financing will shed light on how financial contracts influence firm behavior across sub-sectors. This analysis utilizes the sub-sector approach to demonstrate how input purchases, output sale contracts, informal sources and formal finance simultaneously determine the financial structure of the firm. The section presents a model which addresses the sources of financing of microenterprise in developing economies and presents empirical implications based on the microenterprise survey in Jordan.

A. The Empirical Model

The empirical model describing the capital structure of the enterprise may be presented by considering the set of endogenous variables: cash or retained earnings (CASH), trade finance from suppliers and customers (TL), non-commercial informal loans (IL) from fellow entrepreneurs, friends and relatives, formal loans (FL) from commercial banks and other non-bank institutions such as NGOs, and informal holdings (IH) in RoSCAs; and the set of exogenous variables: characteristics of the enterprise (Y_K), including value of physical capital (K), the profitability of the firm (P/T), where (T) is

the total cost of inputs and (P) is the price of output, size of the enterprise (Size: Sole, Micro, and Small), sector of operation (Sector: MNF, SRV, TRD), location (AMMAN), the age of the firm (YRS), interest rates associated with the financial liabilities (i_j), where ($j= TL, FL$), the use of bank deposit accounts (ACCT) and a set of entrepreneurial or managerial abilities (A), which included proxy variables, such as the education level (EDUC), gender (MALE) and age (AGE) of the entrepreneur. The variables in the model are specified in table C1.

The allocations of financial assets and liabilities used to finance the firm's operating costs for a given period are jointly determined in a structural system of simultaneous equations (eqs. 1-5). The empirical model can be written as:

$$(C)' \beta_{10} \% \beta_{11}(i_{TL}) \% \beta_{12}(TL) \% \beta_{13}(Y_K) \quad (1)$$

$$(TL)' \beta_{20} \% \beta_{21}(i_{TL}) \% \beta_{22}(i_{FL}) \% \beta_{23}(FL) \% \beta_{24}(Y_K) \quad (2)$$

$$(FL)' \beta_{30} \% \beta_{31}(i_{FL}) \% \beta_{32}(IL) \% \beta_{34}(Y_K) \quad (3)$$

$$(IL)' \beta_{40} \% \beta_{41}(IH) \% \beta_{42}(Y_K) \quad (4)$$

$$(IH)' \beta_{40} \% \beta_{41}(C) \% \beta_{42}(Y_K) \quad (5)$$

The objective of this model is to examine the financial structure of the firm using the structural

system of simultaneous equations which accounts for the endogeneity of financial contracts in different sectors. The financial assets and liabilities on the left hand side (LHS) of equations 1-5 are determined simultaneously, and are explained by a set of exogenous or predetermined variables on the right hand side (RHS). Following the safety first principal, the use of the alternative financial asset and liabilities is jointly determined, with cash or retained earnings ranked first, trade loans second, formal loans third, informal loans fourth, and informal holdings fifth.

The model tests for the entrepreneurs' use of the safety first principal of the pecking order theory and the determinants that affect the entrepreneurs's choices of the alternative sources of finance. This implies, first, that more profitable enterprises, those with larger values of physical assets, larger enterprises in the small scale category, older enterprises, those run by older and more educated entrepreneurs, are expected to use safer internal sources of finance or retained earnings (RE) to a larger extent than their counterparts. Second, entrepreneurs using external sources of finance are expected to use safer and less costly sources, such as trade loans (TL), first, and more risky sources of external finance, i.e. formal loans (FL), second. Again, more profitable enterprises, those with larger values of physical assets, larger enterprises in the small scale category, older enterprises, those run by older and more educated entrepreneurs, are expected to use safer external sources of finance to a larger extent than their counterparts. The appropriate econometric technique was used to produce the most efficient results.²³

B. Results and Discussion

Table C2 presents the results of the long-term multipliers generated from the first-stage

²³ The different financing sources that an entrepreneur may use to fund total expenditures over inputs represent some zero and non-zero amounts for the variables (C, TL, FL, IL, IH) on the LHS of the equations in the model. The sequential two-stage estimation technique used in the study involves, first, estimating the reduced form equations using the standard tobit model for equations with limited LHS variables (Table C2). Second, the predicted values of the endogenous variables from step 1 are inserted for the endogenous variables on the RHS of the equations in the structural model. Third, the structural equations are estimated using the tobit maximum likelihood technique to generate the results of the model presented in table C3. This methodology is similar to that used in Nelson and Olson's model (1978), reviewed by Amemiya (1984) under a type 4 tobit model, which generates consistent and asymptotically normal estimates.

estimation of the reduced form equations. Among the significant relationships, profitability of the enterprise has a positive effect on the entrepreneur's use of informal holdings and negative effect on the entrepreneurs' use of formal loans. The coefficients for profitability indicate that more profitable enterprises use smaller amounts of formal loans and have more informal holdings in "gam'iyat", in line with the pecking order theory. The value of physical assets of the enterprise has a positive effect on the entrepreneurs' use of both formal and informal loans. This contradicts the pecking order theory, however it is in line with asymmetric information theory. Physical assets are typically used as collateral by lenders, and particularly formal institutions, or at least are a proxy for capacity of repayment in an attempt to resolve part of the asymmetric information problems. The age of the business, however, has a negative effect on the entrepreneurs' use of informal loans implying a preference for the use of other internal and less external sources of finance in line with the pecking order theory.

Size of the enterprise seems to have an influence on the entrepreneurs' choice of the alternative financing sources. Small enterprises have a positive effect on the use of cash or retained earnings, in line with the pecking order theory, implying that they use more retained earnings than micro and sole operators. Moreover, small scale enterprises have a positive effect on the use of trade credit. This finding can be explained by the large amounts of trade credit flowing to small scale enterprises compared to micro and sole operated businesses, in line with the pecking order theory. Small and micro enterprises, however, seem to draw more on external sources of financing, namely informal and formal loans, than sole operators who rely more on the use of internal sources.

Sector differences also had an effect on the entrepreneurs' use of the various channels of finance. Enterprises operating in the manufacturing and service sectors used less trade loans than trade establishments. This result was expected, as trade credit is more typical for enterprises in the trade sector using large amounts of supplier credit.

Surprisingly, education did not seem to have a long term effect on the entrepreneurs' use of alternative sources of financing. Age of the entrepreneurs, however, indicated that older entrepreneurs use more cash, informal and formal loans, and less informal holdings than younger entrepreneurs. This implies, contrary to expectations, that older entrepreneurs seem to be more risk taking than younger entrepreneurs. Moreover, gender of the entrepreneurs seemed to have an effect on their effective demand for the alternative financial sources. Male entrepreneurs seem to use more trade credit than

women entrepreneurs which could be explained by risk aversion behavior on part of women entrepreneurs. Location also implies that entrepreneurs in Amman use more trade credit than those outside Amman. The competition among suppliers in particular sub-sectors could provide an explanation to this phenomena which is less evident outside Amman where there is less competition among traders. Entrepreneurs in Amman, however, seem to use less informal holdings which implies that participation in these groups is stronger outside Amman.

The use of formal deposit services has a positive effect on the use of cash or retained earnings and a negative effect on the use of trade and informal loans, as well as informal holdings. This is not surprising given that most entrepreneurs who do not have reservations dealing with commercial banks to meet their deposit demands do not have an effective demand for participating in informal groups and the use of external sources of finance such as trade and informal loans. Moreover, the positive relation between the use of bank deposit services and the use of retained earnings implies that entrepreneurs who use more retained earnings in financing their business operations hold deposit accounts.

Interestingly, the use of retained earnings is negatively associated with the interest rate on trade loans, implying that at higher interest rates on trade credit entrepreneurs use more retained earnings. The use of trade loans, as well as informal loans, are positively associated with the interest rates on trade loans, while the use of formal loans is positively associated with the interest rate on formal loans. These results can be explained by the fact that the equations represent a market outcome and do not allow for separation between the supply and demand for the financial sources. Thus, the positive association between the financial liabilities and their respective interest rates implies a combination of supply and demand behavior and the resulting use by entrepreneurs of these financial channels.

Results of the second-stage estimation, presented in table C3, are similar with respect to most of the factors discussed among the long-term relationships, reflected in the first-stage estimation, in addition to some new implications. Among the additional implications is the finding that enterprises that have a larger value of physical assets use more cash or retained earnings and less trade loans than their counterparts. This implies that entrepreneurs who use less trade loans and more retained earnings are resorting to safer sources of finance, in line with the pecking order theory of finance. In addition, the use of formal loans has a positive effect on the use of trade loans. This result implies a complementary effect between formal and trade loans, where entrepreneurs using trade loans use more formal loans

and vice-versa, contrary to the pecking order theory.

C. Lessons and Implications

The results of the capital structure model provide several lessons and insights about the importance of the entrepreneurs' effective demand for financial services and the sources they draw upon to finance their operations. First, cash or retained earnings are used more by enterprises in the small scale category, those with larger value of assets, older entrepreneurs, and those who hold accounts with banks. Second, enterprises with less assets, those in the sole and micro scale enterprises, those operating in the manufacturing and service sector, those operated by women entrepreneurs, those outside Amman, those who hold accounts with banks and those who are not using formal loans, use less trade loans. Third, increases in formal loans are associated with increases in the value of physical assets of the enterprise, decrease in profitability, those enterprises in the small and micro categories, and an increase in the age of the entrepreneur. Fourth, informal loans are larger for enterprises with larger value of physical assets, those that have been in operation for a shorter period of time, those that fall in the micro and small scale categories, older entrepreneurs, and those that do not hold accounts in formal institutions. And finally, more profitable enterprises, those operated by younger entrepreneurs, and those who do not hold accounts in formal institutions are associated with using less informal holdings in "gam'iyat".

2. Determinants of the Potential Demand for Formal Loans

A. Potential Demand for Formal Individual Loans

The empirical model describing the entrepreneurs' potential demand for formal individual loans (PFL) takes into account, first, capital structure of the enterprise by considering the following set of variables: cash or retained earnings (C), trade finance from suppliers and customers (TL), non-commercial informal loans (IL) from fellow entrepreneurs, friends and relatives, formal loans (FL) from commercial banks and other non-bank institutions such as NGOs, formal holdings (ACCT) and informal holdings (IH). Second, the set of variables describing characteristics of the enterprise and entrepreneurs include: characteristics of the enterprise (Y_K), including value of physical capital (K), the

profitability of the firm (P/T), size of the enterprise (Size: Sole, Micro, and Small), sector of operation (Sector: MNF, SRV, TRD), location (AMMAN), the age of the firm (YRS), interest rates associated with the financial liabilities (i_j), where ($j= TL, FL$), the use of bank deposit accounts (ACCT) and a set of entrepreneurial or managerial abilities (A), which included proxy variables, such as the education level (EDUC), gender (MALE), and age (AGE) of the entrepreneur. The variables in the model are specified in table C4.

The objective of this model is to examine the determinants of the entrepreneurs' potential demand for formal individual loans using the following equation (6):

$$(PFL)' \beta_{50} \beta_{51}(i_{TL}) \beta_{52}(i_{FL}) \beta_{53}(TL) \beta_{54}(FL) \beta_{56}(IL) \beta_{57}(C) \beta_{58}(IH) \beta_{59}(ACCT) \beta_{510}(Y_K) \quad (6)$$

This model allows us to take the capital structure of the firm into account when examining the determinants of the entrepreneurs' potential demand for formal individual loans. Given that some entrepreneurs have potential demand for formal loans while others do not, presents some zero and non-zero amounts for the (PFL) variable on the LHS of the equation. The standard tobit model is, therefore, the appropriate estimation technique to generate the results (Table C5).

Among the significant relationships, the value of the physical assets of the enterprise has a negative effect on the entrepreneurs' potential demand for formal individual loans. This implies that enterprises which have a high value of physical capital do not have a high potential demand for formal loans. Firms that have been in business longer have a higher potential demand for formal loans compared to enterprises which have been in operation for shorter periods of time. Moreover, enterprises that fall in the small scale category, also, seem to have a higher potential demand for formal loans than microenterprises and sole operators. Interestingly, female entrepreneurs seem to have a higher potential demand for individual formal loans than male entrepreneurs. Finally, the use of formal loans implies that entrepreneurs who draw on formal loans have a higher potential demand for additional individual formal loans. In summary, results of the potential individual formal loan demand model among entrepreneurs indicate that enterprises with **less physical capital**, those that have been **in business for longer period of time**, those in the **small scale category**, **women entrepreneurs**, and entrepreneurs who have a **higher effective demand for formal loans** have a **higher potential**

demand for individual formal loans .

B. Potential Demand for Formal Group Loans

The empirical model describing the entrepreneurs' potential demand for formal group loans (PGL), similar to the potential demand for individual loans model, takes into account, first, capital structure of the enterprise by considering the following set of variables: cash or retained earnings (C), trade finance from suppliers and customers (TL), non-commercial informal loans (IL) from fellow entrepreneurs, friends and relatives, formal loans (FL) from commercial banks and other non-bank institutions such as NGOs, formal holdings (ACCT) and informal holdings (IH). Second, the set of variables describing characteristics of the enterprise and entrepreneurs include: characteristics of the enterprise (Y_K), including value of physical capital (K), the profitability of the firm (P/T), size of the enterprise (Size: Sole, Micro, and Small), sector of operation (Sector: MNF, SRV, TRD), location (AMMAN), the age of the firm (YRS), interest rates associated with the financial liabilities (i_j), where ($j= TL, FL$), the use of bank deposit accounts (ACCT) and a set of entrepreneurial or managerial abilities (A), which included proxy variables, such as the education level (EDUC), gender (MALE), and age (AGE) of the entrepreneur. The variables in the model are specified in table C4.

The objective of this model is to examine the determinants of the entrepreneurs' potential demand for formal group loans using the following equation (7):

$$(PGL)' \beta_{50} \beta_{51}(i_{TL}) \beta_{52}(i_{FL}) \beta_{53}(TL) \beta_{54}(FL) \beta_{56}(IL) \beta_{57}(C) \beta_{58}(IH) \beta_{59}(ACCT) \beta_{510}(Y_K) \quad (7)$$

This model, similar to the potential demand for individual formal loans model, allows us to take the capital structure of the firm into account when examining the determinants of the entrepreneurs' potential demand for formal group loans. Given that some entrepreneurs have potential demand for formal group loans while others do not, presents some zero and non-zero amounts for the (PGL) variable on the LHS of the equation in the model. The standard tobit model is, again, the appropriate estimation technique to generate the results (Table C6).

Among the significant relationships, the profitability of the enterprise has a positive effect on the

entrepreneurs' potential demand for formal group loans. Those enterprises in the manufacturing and service sectors, moreover, seem to have a high potential demand for formal group loans. In addition, enterprises that fall in the small scale category seem to have a higher potential demand for formal group loans than microenterprises and sole operators. Regarding the characteristics of the entrepreneurs, less educated entrepreneurs, male entrepreneurs, and those located in Amman, seem to have a higher potential demand for group loans than their counterparts. Finally, the use of informal loans implies that entrepreneurs who borrow from family and friends have a higher potential demand for formal group loans, while participating in informal groups or "gam'iyat" indicated a reduced potential demand for group loans. In summary, results of the potential formal group loan demand model among entrepreneurs indicate that enterprises with **higher profitability**, those **in the manufacturing and service sectors**, those in the **small scale category**, **men entrepreneurs**, and entrepreneurs who have a **higher effective demand for informal loans and those who do not participate with informal groups** have a **higher potential demand for formal group loans**.

V. DETERMINANTS OF THE DEMAND FOR FINANCIAL SERVICES AMONG POTENTIAL ENTREPRENEURS IN JORDAN

1. Potential Demand for Formal Individual Loans

The empirical model describing the respondents' potential demand for formal individual loans (PFL) takes into account, first, the sources of finance the individuals use by considering the following set of variables: non-commercial informal loans (IL) from friends and relatives, formal loans (FL) from commercial banks and other non-bank institutions such as NGOs, formal holdings (ACCT) and informal holdings (IH), and the interest rates associated with the financial liabilities (i_j), where ($j=FL$). Second, the set of variables describing the sector of operation the potential entrepreneurs are interested in (Sector: MNF, SRV, TRD), their location (AMMAN), and a set of individual attributes which include proxy variables, such as the education level (EDUC), gender (MALE), and age (AGE) of the respondent. The variables in the model are specified in table C4.

The objective of this model is to examine the determinants of the respondents' potential demand for formal individual loans using the following equation (8):

$$(PFL)' \beta_{50} \beta_{51}(i_{TL}) \beta_{52}(i_{FL}) \beta_{53}(TL) \beta_{54}(FL) \beta_{56}(IL) \beta_{57}(C) \beta_{58}(IH) \beta_{59}(ACCT) \beta_{510}(Y_K) \quad (8)$$

This model allows us to take into account the alternative financial sources the respondents use when examining the determinants of the respondents' potential demand for formal individual loans. Again, given that some respondents have potential demand for formal loans while others do not, the standard tobit model was used to generate the results (Table C7).

The results of the model showed that the attributes of the potential entrepreneurs were among the significant relationships. As expected, male entrepreneurs seem to have a higher potential demand for individual formal loans than female entrepreneurs. Moreover, older individuals who presumably have more information are also more interested in loans and, therefore, have a higher potential demand for informal loans. This result, however, implies that older individuals who are typically more risk averse are behaving more as risk takers. In addition, individuals residing in Amman also have a higher potential demand for formal individual loans. With respect to the use of the alternative financial sources, individuals participating in informal groups have a lower potential demand for formal loans than those who do not participate in "gam'iyat". Individuals holding deposit account with formal institutions, however, have a higher potential demand for formal loans which is not surprising given that these individuals have relations with banking institutions. In summary, the results of the potential individual formal loan demand model among potential entrepreneurs indicate that **men, older** individuals, those **residing in Amman**, those **who do not participate in informal groups**, those **who hold deposit accounts with banks**, and those who have a **higher effective demand for formal loans**, have a **higher potential demand for individual formal loans**.

2. Potential Demand for Formal Group Loans

The empirical model describing the respondents' potential demand for formal group loans (PGL) takes into account, first, the sources of finance the individuals use by considering the following set of variables: non-commercial informal loans (IL) from friends and relatives, formal loans (FL) from commercial banks and other non-bank institutions such as NGOs, formal holdings (ACCT) and informal holdings (IH), and the interest rates associated with the financial liabilities (i_j), where ($j=FL$).

Second, the set of variables describing the sector of operation the potential entrepreneurs are interested in (Sector: MNF, SRV, TRD), their location (AMMAN), and a set of individual attributes which include proxy variables, such as the education level (EDUC), gender (MALE), and age (AGE) of the respondent. The variables in the model are specified in table C4.

The objective of this model is to examine the determinants of the respondents' potential demand for formal group loans using the following equation (9):

$$(PGL)' \beta_{50} \beta_{51}(i_{TL}) \beta_{52}(i_{FL}) \beta_{53}(TL) \beta_{54}(FL) \beta_{56}(IL) \beta_{57}(C) \beta_{58}(IH) \beta_{59}(ACCT) \beta_{510}(Y_K) \quad (9)$$

This model allows us to take into account the alternative financial sources the respondents use when examining the determinants of the respondents' potential demand for formal group loans. Similar to the earlier model, the standard tobit model was used to generate the results (Table C8).

Sector of operation was among the most significant relationships. Respondents interested in the service sector have a lower potential demand for group loans than those interested in the manufacturing or trade sectors. Among the attributes of the potential entrepreneurs, men, surprisingly, seem to have a higher potential demand for group loans than women. Moreover, higher interest rates on formal loans are associated with higher demand for group loans. In summary, the results of the potential group loan demand model among potential entrepreneurs indicate that respondents interested in the **manufacturing and trade sectors**, and **men** have a **higher potential demand for formal group loans**.

VI. Summary, Lessons and Conclusions

The purpose of this study was to generate economic, financial and social profiles for micro and small scale entrepreneurs as well as potential entrepreneurs in Jordan. The United States Agency for International Development (USAID) is supporting a project in Jordan to strengthen access to microfinance and improved implementation of policy reform (AMIR). The aim of the project is to assist banks and non-bank institutions in providing sustainable financial services to micro and small scale

entrepreneurs. This study presented the findings of a baseline survey of a randomly selected sample of 350 micro and small scale entrepreneurs and a survey of 216 potential entrepreneurs across various sectors in the three most populated areas in the country, Amman, Irbid and Zarqa. Meeting the objective of this study provides the AMIR project with indicators of micro and small scale entrepreneurs and potential entrepreneurs' effective demand for financial services as well as their potential demand for formal individual and group loans in Jordan.

1. Summary of the Enterprise Survey Results

Results of the enterprise survey indicate that the entrepreneurs were on average middle aged, married, generally educated, and largely the sole providers to their families. The gender composition of the sample included a few more men than women microentrepreneurs, which is not surprising given that women represent a very small share of the labor force in Jordan. The enterprise survey covered the manufacturing, service and trade sectors roughly equally. In general, the majority of the enterprises were in the microenterprise category, i.e. employed between 1 and 4 workers with an average of 2 employees. Very few entrepreneurs used family labor or apprentices. Enterprises had a median present value of physical assets of JD2000; this value varied depending on the size of enterprise with sole operators total value of assets at about JD600 and small enterprises asset value of JD7000. Most enterprises were largely registered and licensed proprietorships. The majority of the entrepreneurs established their businesses almost a decade ago and used their own funds to cover start-up costs and investments. A few small scale enterprises used bank loans as a source of investment capital in order to start or expand the business. Based on the initial number of employees, enterprises that started as sole operators, i.e. with no employees, have experienced the highest growth rates, while those that started up in the small scale category, i.e. with more than 5 employees, did not experience much growth. Moreover, enterprises in Amman and those in the manufacturing sector have experienced more growth than their counterparts.

Sources of finance reported by the entrepreneurs for current operations included both informal and formal channels. First, about one third of the entrepreneurs reported using trade loans from their suppliers and a few used advances from their customers. Supplier credit was the principal type of trade credit that most entrepreneurs used. Second, informal sources of finance from family and friends were

reported by about one third of entrepreneurs in the sample. Third, over two thirds of the entrepreneurs reported never requesting formal loans primarily because of the availability of other sources, fear of inability of repayment, and religious beliefs. About one fourth of the entrepreneurs who had requested a formal loan at one time were rejected, which indicates a relatively significant incidence of loan quantity rationing. Fourth, only one fourth of the interviewed entrepreneurs acquired formal finance at one point in the past. More importantly, only about one tenth had used a formal loan over the past year.

Size of the enterprise indicated that more enterprises in the small scale category used trade and formal loans than microenterprises and sole operators; furthermore, those small entrepreneurs used larger amounts of trade credit and formal loans than their counterparts. Sector of operation indicated that more enterprises in the trade sector used trade credit than those in the service and manufacturing sector, while enterprises in the service sector used larger amounts of formal loans than those in the manufacturing and trade sectors. Location of the enterprise indicated that more enterprises in Amman and Zarqa used formal loans than those in Irbid, and again, those who did used larger amounts than the enterprises in Irbid. Lastly, the gender profile indicated that while more male entrepreneurs used larger amounts of trade credit than female entrepreneurs, the share of male and female entrepreneurs who used formal loans, and the amounts they used, were rather similar.

On the savings side, the entrepreneurs' use of formal savings channels, commercial banks in principal, was associated with half of the entrepreneurs. Another form of savings was participation in the informal rotating savings and credit groups (RoSCAs) or "gam'iyat". Roughly one fourth of the entrepreneurs in the sample reported participating in "gam'iyat".

Investigation of the effective demand for formal loans indicated that entrepreneurs who demanded formal loans over the past year used amounts with a median of JD3000, at an average interest rate of 14 percent, for a term of about 2 years, with collateral values reaching over 100 percent of the loan amount, and a value of monthly installments with a median of about JD150. Investigation of the potential demand for individual loans indicated that almost half of the entrepreneurs had interest in gaining access to working capital loans with a median size of JD5000, at 6 percent interest, and for a 3 years term. These results indicate that the potential demand bears different loan terms and conditions from the effective demand. While entrepreneurs effectively pay interest rates that average 14 percent, their willingness to pay for potential loans reached only a mere average of 6 percent. Moreover, while

entrepreneurs' effective demand for loans had a median size of about JD3000, the potential demand registered amounts with a median of JD5000. Lastly, small scale enterprises, those in the manufacturing and service sectors, and those in Amman and Zarqa had a larger potential demand for individual loans than their counterparts.

Investigation of the entrepreneurs' potential demand for group loans revealed that only a fourth of the sample was interested in group loans. The potential demand for group loans was smaller than that for individual loans, with the median for groups loans at about JD3000 repaid with one installment per month for a period of two and a half years. Interestingly, more men entrepreneurs, those in the manufacturing sector, entrepreneurs in Amman and Irbid, and small scale entrepreneurs had a higher potential demand for group loans than their counterparts.

An examination of the entrepreneur's effective demand for the various sources of financing sheds light on how financial contracts influence firm behavior across various sectors. An empirical model which addresses the sources of financing of microenterprises in developing economies was tested and implications presented based on the enterprise survey in Jordan. The results of the model indicated first, that enterprises that have a larger value of physical assets, enterprises in the small scale category, older entrepreneurs, and those who hold deposit accounts in banks, use more cash than their counterparts. Second, enterprises that have a smaller value of physical assets, enterprises in the small scale category, those in the trade sector, male entrepreneurs, those located in Amman, and those who do not hold deposit accounts in banks, use more trade credit than their counterparts. Third, less profitable enterprises, those that have a larger value of physical assets, those in the micro and small scale categories, and older entrepreneurs use more formal loans than their counterparts. Fourth, enterprises that have a larger value of physical assets, those that have been in operation for a shorter period of time, those in the micro and small scale categories, older entrepreneurs, and those who do not hold deposit accounts with banks, use more informal loans than their counterparts. Fifth, more profitable enterprises, those located outside Amman, and younger entrepreneurs, use larger amounts of informal holdings with informal groups "gam'iyat" than their counterparts. Finally, the use of formal loans was significantly associated with the use of trade loans which implies a complementarity relationship between the two external sources of funds.

Examination of the entrepreneurs' potential demand for formal loans was further tested using

two empirical models. The results of the potential demand for individual loans model indicated that enterprises with a smaller value of physical assets, those that have been in business for a longer period of time, small scale enterprises, women entrepreneurs, and entrepreneurs who use formal loans have a higher potential demand for individual loans. The results of the potential demand for group loans model indicated that more profitable enterprises, those in the manufacturing and service sectors, those in the small scale categories, those located in Amman, less educated entrepreneurs, male entrepreneurs, and those who use informal loans and informal holdings, have a higher potential demand for group loans.

2. Summary of the Potential Entrepreneurs Survey Results

Results of the potential entrepreneurs survey indicated that the respondents were in general educated individuals, in their early thirties, who were largely unemployed. The potential entrepreneurs reported interest primarily in the three sectors of manufacturing, service and trade. The majority of the respondents reported that they were interested in establishing enterprises outside their homes where their spouses would play a small or no role.

The estimated size of initial capital for potential investment reached a median of JD3000. Most of the potential entrepreneurs reported that they would seek bank and NGO financing. Only a few suggested they would rely on self financing or borrowing from friends and family. Moreover, the majority of those who indicated they would seek bank or NGO loans reported that they would require, on average, up two thirds of the initial value of their investment from these external sources. Gender and sector of operation factors indicated that more male respondents and those interested in investing in the service sector reported they would seek bank loans while more female respondents and those interested in investing in the manufacturing sector reported they would seek NGO loans.

Sources of finance reported by the potential entrepreneurs included both informal and formal channels. First, informal sources of finance from family and friends were reportedly used by about one third of the potential entrepreneurs over the past year. These informal loans were rather small as the median was about JD200, granted for 2 to 3 months, free of interest and typically unsecured. Second, the majority of the potential entrepreneurs had never requested formal loans primarily because of the fear of inability of repayment, religious beliefs, insufficient collateral, and availability of other sources. Among the respondents who had requested a formal loan in the past, about a fourth were rejected

which indicates, again and similar to the results in the enterprise survey, a relatively significant incidence of loan quantity rationing. Third, only very few potential entrepreneurs had acquired formal loans last year. These loans were largely consumer loans with a median loan size of JD450, granted at 12 percent interest charges, for a period of about one year, with monthly installments of JD40, and 100 percent securities.

With respect to savings, on the one hand, the respondents' use of bank savings services was reported by only one fourth of the sample. More male respondents and those interested in the trade sector reported holding deposits with banks. On the other hand, participation in the informal RoSCAs or "gam'iyat" was higher as it was reported by about a third of the sample. These were largely women groups, comprised of about 14 members, who met once a month and the total contribution per member reached about JD240 per year. Gender and location distributions implied, as expected, that more female respondents and those who reside outside Amman were members of these groups. Potential demand for electronic cards was significant. Most of those interested in these cards, however, reported interest in ATM cards rather than credit cards. Interestingly, respondents suggested they were willing to pay a fee for their card use. Lastly, few respondents indicated that they hold any type of insurance.

The investigation of the respondents' potential demand for group loans revealed that only a few respondents were interested in these types of loans. Interestingly, there were more men than women interested in group loans. The median value of these loans was about JD2000 to be repaid over a period of 2 years with monthly installments. Men and potential entrepreneurs interested in the trade sector had a higher potential demand for group loans than their counterparts.

The potential demand for individual loans was much more significant than group loans among potential entrepreneurs. Over two thirds of the respondents reported interest in gaining access to working capital and fixed assets loans. The preferred terms and conditions for these loans included a median amount of about JD3000, to be repaid over a period of three years, lent at 5 percent interest charges, 1 percent fee charges, with the majority of the respondents offering no collateral or any form of guarantee. More male potential entrepreneurs, those in the service and trade sectors, and those respondents residing in Amman had a higher potential demand for formal individual loans than their counterparts.

Empirical testing of the potential demand for individual and group loans confirmed some of the descriptive analysis. Results of the potential demand for individual loans model showed that older individuals, men, those residing in Amman, those who hold deposit accounts with banks, and those who do not participate in informal groups have a higher potential demand for formal individual loans. The potential demand for group loans model indicated that individuals interested in the trade sector, men and those paying high interest rates on formal loans had a high potential interest in group loans.

3. Lesson and Conclusions

The effective and potential demand for the various types of financial services by entrepreneurs and potential entrepreneurs reflect several lessons.

A. Client Profile

The surveys revealed that entrepreneurs and potential entrepreneurs both have effective and potential demand for various informal and formal financial services. The potential demand for individual loans is much higher than that for group loans for all types of microentrepreneurs. Size of the enterprise, sector of operation, location, and gender of the micro and small entrepreneurs, however, affect the entrepreneurs' demand for alternative financial services.

Size of the enterprise indicates that more small scale entrepreneurs use trade credit, formal loans, hold bank accounts and have a higher potential demand for formal individual and group loans than microentrepreneurs and sole operators. The highest participation in informal groups is among the sole operators. This implies that small scale entrepreneurs are potentially the more likely type of clients to demand individual loans from microfinance institutions while the single operators could possibly be interested in group loans

Sector of operation indicates that enterprises in manufacturing rely more on the use of informal loans and participation in informal groups than enterprises in the other sectors. Manufacturing enterprises, however, reported the highest potential demand in both individual and group loans. Potential entrepreneurs interested in establishing enterprises in the manufacturing sector, also, indicated

the highest use of informal loans and participation in informal groups. Potential entrepreneurs interested in the service sector, however, reported the highest use of formal loans and the highest potential demand for individual loans.

Location of the enterprise indicates that enterprises in Amman use more trade credit and formal loans. Entrepreneurs outside Amman, however, reported the highest participation in informal groups. Potential demand for individual loans by entrepreneurs was the highest in Irbid and potential demand for group loans was the highest in Amman. Potential entrepreneurs residing outside Amman, also, reported a higher participation rate in informal groups than those in Amman. Potential entrepreneurs in Amman, though, had the highest potential demand for individual loans.

Gender of the entrepreneurs indicates male entrepreneurs use more trade credit while more female entrepreneurs participate in “gam’iyat”. Both men and women entrepreneurs had a high potential demand for loans, with men reflecting a little more interest in both individual and group loans. Finally, while more women potential entrepreneurs were members of “gam’iyat”, men potential entrepreneurs had a higher potential demand for individual and group loans.

B. Financial Products

Preference for alternative **lending technologies** indicates a higher potential demand for individual versus group loans. The terms and conditions associated with individual loans allow for more flexibility in terms of size of the loan, disbursement, term, and repayment schedule, which render individual loans as a more attractive and valuable loan product for many entrepreneurs and potential entrepreneurs. In contrast, group loans seem to have a lower value, particularly when associated with the additional responsibility and risk of group repayment in case of default by any member of the group, rigid disbursement, repayment schedules, and compulsory meetings.

Effective and potential demand for formal loans indicate larger **loan size** than typically associated with informal loans. This is not surprising, particularly when one takes into account the frequency of use of each type of loans. Trade credit, which involves roughly JD200 every two weeks, yields a total annual debt figure of about JD4800. This is comparable with the potential demand loan size of JD5000 for individual loans, and the effective demand loan size of JD3000 that is typically used

once per year by entrepreneurs. Loan quantity and loan size rationing, also, indicate that there is a higher effective demand for formal loans than is registered in the market outcome. Moreover, the potential entrepreneurs' demand reflects slightly smaller loan amounts of JD3000 for individual loans and JD2000 for group loans than those demanded by existing entrepreneurs. This is reasonable given the limited repayment capacity of new businesses.

Entrepreneurs and potential entrepreneurs borrowing from formal sources at market interest rates, suggest that potential loans from microfinance institutions should have lower **interest rate charges**. This typical low willingness to pay for financial services by low income entrepreneurs and potential entrepreneurs is, however, rhetorical considering that the effective demand reflects that borrowers actually are willing and able to pay market interest rates. Some entrepreneurs using trade credit are even paying higher effective interest charges to their suppliers in the informal markets. Moreover, credit rationing indicates that there are some applicants who are willing to pay at least the market interest rates and are screened outside the formal financial markets.

Typically, formal loan have longer **term to maturity** than informal loans. Effective demand indicates that entrepreneurs and potential entrepreneurs are using formal loans that mature in one to two years. Potential demand, however, reflects interest in even longer maturity periods of up to three years. While manufacturing enterprises may require longer term loans, traders are likely to be attracted to shorter term loans given the high turnover of their business cycle.

Availability of **collateral** requirements did not seem to be a problem for entrepreneurs and potential entrepreneurs. The use of guarantors to secure loans, moreover, allowed a number of individuals to access formal loans. Most entrepreneurs reported being able to provide one form of collateral to secure individual loans, while only half of the potential entrepreneurs indicated they were able to provide any type of collateral. While group monitoring attracts some entrepreneurs and potential entrepreneurs to the use of group loans, high group transaction costs, rigidities and risks deter many others.

Hence, the various terms and conditions of individual and group loans and the effective and potential demand for loans exhibit a set of characteristics that could be used to redefine the lending technologies adopted by microfinance institutions in Jordan to meet the demand of most clients.

Different types of clients will find a match among the alternative technologies to meet their demand requirements.

C. Size of the Market Demand

Market niches exist in the largely unexplored microfinance market in Jordan. Effective demand estimates of the entrepreneurs' use of formal loans indicate that the total formal debt used by the sample over the past year reached over JD300,000. Extrapolating to the population, using the official statistics on the number of establishments, generates a more impressive effective market demand that could reach up to JD168 million.²⁴ Moreover, estimating the potential demand for the microenterprise population under study indicates even a much larger market of JD158 million for individual loans and JD51 million for group loans.²⁵ Similarly, the potential entrepreneurs' survey reflects that the potential demand could reach about JD100 million for individual loans and JD12 million for group loans. It should be highlighted, however, that the potential demand estimates are based on the reported terms and conditions suggested by the entrepreneurs which include 6 percent interest rates. Nonetheless, the exercise serves the purpose of suggesting that the microfinance market size is much larger than what is currently being met by the institutions offering microfinancial services in the country.²⁶

4. Implications

The supply of financial services should be demand driven and not based on heavily subsidized intervention programs. The provision of quality products designed to meet the microentrepreneurs' demand should incorporate incentive structures that would induce these economic agents to pay for the services they receive. This delivery system should allow institutions to have a wider outreach and

²⁴ Estimate used the population size of 73,706 establishments in the sub-sectors under study, the 33 percent effective demand for formal loans, and the average value of formal loans over the past year of JD7,325.

²⁵ Estimates based on the 43 percent potential demand for individual loans with a median of JD5000 and 23 percent potential demand for group loans with a median of JD3000.

²⁶ A World Bank study estimates the current outstanding total loan portfolio for the microenterprise sector of about JD24 million (Brandsma and Khayatt, 1996).

become sustainable and cost effective. While initial limited subsidies may be necessary to support pilot projects at initial stages of the experimental phase, due attention should be given to the costs and benefits of programs providing financial services.

Evidently, there is an effective demand for financial services in the microenterprise sector in Jordan. Thus, it is essential to develop microfinance institutions that deliver the financial services demanded by micro and small scale entrepreneurs in particular, and the poor in general, according to best practices. Financial services, both loans and savings, are important because they allow small economic units and households to enhance the returns on their economic activities by improving their liquidity management. However, providing these services in a cost effective manner is not easy to achieve. It requires innovative approaches to create risk and cost reducing loan technologies in organizations or institutions with incentive compatible structures that ensure loan recovery at reasonable costs.

NGO programs focusing on distributing subsidized loans are as short lived as the life of the operation that is required to allocate the funds. A major weakness of this single loan approach is the probable impact it has on loan recovery. If a borrower does not gain a reward of continuing access to financial services through repaying his/her loan, then there is little incentive to do so. Programs that plan to channel financial services to microentrepreneurs should attempt to mobilize their funds. However, mobilizing deposits should be subject to regulation and these institutions should be monitored by appropriate regulatory authorities to ensure the safety of depositors.

Sustainable microfinance institutions should be able to provide better services at lower costs to their clients than the informal financial sector. Alternative informal financial services used by microentrepreneurs in Jordan include trade loans from suppliers and customers, informal loans from friends and family and informal holdings with RoSCAs. Flexibility, inconsequential transaction costs, low administrative costs and credit reserves are among the dominant characteristics of informal financial services. Most importantly, informal financial services solve, at modest cost, fundamental problems in finance: agent incentives, mobilizing deposits, avoiding theft, screening and selecting borrowers, collecting loan repayments, and applying sanctions. In large part, informal financial agents manage these complex problems because of the prior knowledge that economic agents have about each other and through their ability to exercise monitoring and informal social sanctions against those who fail to meet their

obligations. Informal finance, however, has limitations with respect to the extent to which it can intermediate between deficit and surplus units and diversify risk over time and across space.

Formal finance cannot substitute for all of the services provided by informal sources. Even in countries with the most efficient formal financial system, informal finance fills important niches. Because of liquidity, efficiency, and security considerations, however, formal finance should be a more appropriate repository for larger scale deposits and larger and longer term loans than are informal arrangements. NGO programs may have developed some comparative advantages in getting to know their borrower clientele in ways that have not been realized by other formal financial institutions in Jordan. The NGO programs in Jordan, however, have limitations with respect to cost effectiveness and leverage. In addition to the limited supply of donor funds and small initial capital base, these programs will not be able to increase their leverage because they cannot provide deposit facilities. Banks engaged in microfinance should be able to provide more continuous intermediation, more access to liquidity, and also realize more economies of scale and scope than NGOs and informal finance presently provide in Jordan.

Microfinance institutions should be able to serve a wide range of clientele rather than specialize with a target group or a particular gender. By eliminating the barriers that deter women from demanding financial services, a microfinance institution should be able to provide services for both men and women entrepreneurs. Moreover, by competing more effectively in providing a variety of financial products, a microfinance institution should incorporate adjustments in its practices to attract both women and men entrepreneurs. This includes assigning women to promote deposits by women, providing a wider variety of financial instruments that emulate some of the advantages found in informal finance, and providing contractual savings programs. Extending more loans to regular depositors and providing various forms of credit lines would be additional ways of enhancing the perceived worth of being a depositor in a microfinance institution. Finally, microfinance institutions also may be able to expand indirectly the amount of lending to small businesses, to women, and to poor people in general by augmenting their lending to merchants, traders and dealers.