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POLICY RESEARCH WORKING PAPER

Leasing to Support Small Businesses and Microenterprises

Joselito Gallardo

The Bank should maximize opportunities to expand the use of leasing as an approach to financial intermediation in Bank projects to promote the development of small businesses and microenterprises.

Summary findings

- In most developing countries, capital markets are relatively undeveloped and banks are often unable or unwilling to undertake term lending. And banks prefer to lend to larger, established businesses with well-developed balance sheets and credit histories. Operations in microenterprises and small businesses are cash-flow-oriented but rarely have organized historical financial records or the assets needed for collateral for conventional bank financing.

Gallardo explores the potential of leasing as an option to expand small businesses' access to medium-term financing for capital equipment and new technology. In a lease-financing contract, the lessor-financier retains ownership of the asset, lease payments can be tailored to fit the cash-flow generation patterns of the lessee-borrower's business, and the security deposit is smaller than the equity stake required in conventional bank financing.

Different types of small businesses require different financial services. It would be worthwhile to encourage development of a range of institutions using special methods to service particular market niches.

Most small businesses that generate extra income for a household or employ nonfamily members need simple access to financing to augment their working capital needs. Microfinance appropriate to their needs will feature short cycles of repayment and borrowing.

Other small businesses require medium-term financing to acquire the tools and equipment needed to support production growth and expansion. For these businesses, leasing is an attractive new financing option. Gallardo examines and compares the Bank's experience:

- Lease financing was used to promote the development of small businesses in Pakistan, as part of a microenterprise development loan project.
- For a Bank-supported alternative-energy project in Indonesia, a variant of lease financing — the hire-purchase contract — is being used in marketing and distribution by private distributors of photovoltaic solar home systems.
- Lease financing was used by Grameen Trust in Bangladesh to finance the purchase of small tools and equipment and in other countries to promote the growth of alternative energy systems.

This paper — a product of the Financial Sector Development Department — is part of a larger effort in the department to disseminate best practice in providing financial services to the poor. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rozzy Garner, room F6K-292, telephone 202-473-7664, fax 202-522-3199, Internet address lgarner@worldbank.org. December 1997. (36 pages)

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Executive Summary

i. This paper is intended to enhance the Bank's awareness of leasing as an additional financing technique that can expand the access of upper-strata microenterprises and small businesses (MSBs) to medium-term financing for capital equipment and new technology. The premise is that the promotion of MSBs is, in general, a good means of reducing poverty insofar as their development would increase the demand for unskilled labor and generate additional household income. The development of MSBs would benefit from opening up additional institutional channels for financial services.

ii. As a financing technique leasing has proven effective in overcoming barriers posed by interest rate ceilings and collateral requirements of conventional commercial bank financing. Leasing can be a source of short- to medium-term financing for equipment needed by MSBs to expand operations. Because their operations are cash flow-oriented, MSB projects can offer new market opportunities for leasing companies. In turn, leasing can provide new ways to acquiring the use of an asset as an alternative to outright purchase using borrowed funds which are generally in very limited supply.

iii. Leasing is based on the proposition that profits are earned through the use of assets, rather than from the ownership. A basic principle in medium- to long-term lending is that cash generated by investment that is partly financed should be the primary source of repayment. The collateral taken as security for the loan serves as a secondary source of repayment, in the event that the borrower is unable to repay the loan from business operations. For short-term loans, the asset conversion cycle, rather than long-term profitability of the business and cash generation, is more critical to assessing the probability of repayment. Conventional asset-based loans offered by banks focus on loan repayment by the borrower from both a primary source (cash flow generation or asset-conversion cycle) and a secondary source (credit enhancements and collateral). In contrast, leasing is more intensely focused on the lessee's ability to generate cash flow from business operations to service lease payments, because the lessor-financier retains ownership of the asset during the term of the lease.

iv. Financial leasing is a contractual arrangement between two parties, which allows one party (the lessee) to use an asset owned by the other (the lessor) in exchange for specified periodic payments. The lessee uses the asset and pays rentals to the lessor, who legally owns it. As the legal owner, the lessor relies on the ability of the user to generate sufficient cash flows to make lease payments, rather than relying on his other assets, capital base or credit history. Knowledge about results of business operations generates indicators of the adequacy of prospective cash flows. This knowledge provides some form of substitute information for credit history that would otherwise not be available if formal financial statements were insisted upon. Security for the transaction is provided by the asset itself. Leasing thereby enables borrowers without well-developed balance sheets or credit histories (especially new or small business entities) to access the use of capital equipment in cases where they would not be able to avail of and qualify for traditional commercial bank lending.

v. Leasing can become an important financing technique for enterprises in the MSB category because of the way business entities finance operations from three main sources of capital: internally-generated cash, bank loans and capital markets. In most developing countries capital markets are relatively undeveloped and banks often prefer to lend to larger, well-established businesses that have a profitable track record and can offer stronger security. Also, banks are often unable or unwilling to undertake term lending. New or small business entities without strong collateral, or which operate in countries with weak or absent laws for enforcing

rights to take possession of security, generally have limited access (if any) to traditional bank lending. Leasing or supplier's credits may be the only recourse to external financing, because ownership of the asset financed does not transfer to the borrower until after the lease obligation has been fully discharged.

vi. MSBs encompass a wide spectrum of often informally organized business activities, with significant variances in terms of sector classification, levels of male and female employment, usage of fixed assets, need for working capital, technological complexity and sophistication, productivity and profitability. Notwithstanding the diversity of MSB activities, the two most important characteristics common to all MSBs operating in the informal sector are (a) extremely limited access to institutionalized sources of finance, and (b) significant lack of access to business support services such as quality maintenance and control, record-keeping, marketing linkages and efficient business management.

vii. Size of an enterprise is commonly measured by the number of workers, because statistics on employment are more easily available and the fact that employment size is more easily envisaged. Other measures of size are the value of capital or assets employed, or volume of sales revenue in a given year. There is a general understanding that enterprises in this informal sector are labor-intensive, provide goods and services for the poor by the poor, and offer opportunities to absorb much more employment than do larger firms for any given level of investment. However, there is no clear and universally accepted definition of microenterprise and small business especially because size-classification of enterprises varies widely among countries.

viii. The MSB sector can be classified into different strata, which is useful in the design of MSB assistance programs. MSBs in the lowest strata need access to working capital for purchases of inputs. Leasing is inappropriate because their needs and repayment capabilities are characterized by short cycles of repeated loan drawdown and repayment. Middle and upper strata MSBs require financing for additional tools and equipment to expand production. Their financing needs will be for larger loans with longer maturities, and leasing may be attractive.

ix. Access to financing to mechanize nonfarm MSB activities promotes increased production and household income in poor urban and rural areas. The paper includes a review of relevant practical experience in the use of leasing as a financial intermediation mechanism for MSB development projects in Pakistan and Bangladesh, and for the sale and diffusion of alternative energy systems in Indonesia, Sri Lanka, the Philippines and Kenya.

x. The paper covers the regulatory, macroeconomic and financial framework necessary to introduce leasing into those segments of the MSB sector which otherwise would not be able to finance the acquisition of equipment in which technology is embodied. However, leasing programs restricted only to microenterprises may not be conducive to leasing companies' need for risk diversification. It may be useful to adapt the leasing approach used for the alternative energy projects, where NGOs and specialized microfinance institutions serve as master lessors in a secondary intermediary layer between leasing companies and end-users. The working paper might then be helpful in preparing a checklist and practical guide for the Bank's task managers who may be interested in exploring the possible use of leasing techniques and instruments in the design of programs for MSB development.

I. Introduction

Background

1. Microenterprises and small businesses (MSB) need improved access to finance especially for acquiring capital equipment and applications of new technology for operations. However, their access to finance is restricted because MSBs typically do not have reliable credit histories, adequate capitalization or additional assets for collateral. Thus, most of their financing needs are provided by informal markets where loans are costlier and maturities shorter.

2. There is potential for effective complementation between leasing and MSBs. As a financing technique leasing has been effective in overcoming barriers posed by interest rate ceilings and collateral requirements in conventional commercial bank lending programs. On the one hand, leasing can be a source for short- to medium-term financing for equipment needed by MSBs to expand operations. On the other hand, MSB projects can offer new market opportunities for leasing companies. MSBs' operations are cash flow-oriented, which would make them attractive new clients for leasing companies. In turn, leasing can provide new ways to acquiring the use of an asset as an alternative to outright purchase using borrowed funds which are generally in very limited supply.

Objectives of the paper

3. This working paper is intended to enhance the Bank's awareness of leasing as an additional tool that can help expand the access of certain categories of MSBs to financing for capital equipment and new technology. The premise is that the promotion of MSBs is, in general, a good means of reducing poverty insofar as their development would increase the demand for unskilled labor and generate additional household income. The promotion and development of MSBs would be enhanced by developing additional institutional channels for financial services. The paper identifies the regulatory, macroeconomic and financial environments necessary for the expansion of leasing activities into the segments of the MSB sector which otherwise would not be able to finance the acquisition of equipment and fixed assets or to avail of technology embodied in production equipment.

4. The paper reviews relevant practical experience in the use of leasing as a financial intermediation mechanism for MSB development projects. Access to financing for nonfarm business and microenterprise promotes increased production and income of households in poor urban and rural areas. Leasing opens up additional access that can help microenterprises become small businesses. Often, microenterprises in this "in-between" niche are too large for traditional microfinance and too small for commercial banks. The paper reviews the impact of applying simple new technologies, especially in alternative energy, on simple production processes characteristic of MSB. The working paper might then be helpful in preparing a checklist and practical guide for the Bank's task managers who may be interested in exploring the leasing approach in the design of programs for MSB development.

II. Basic concepts and transaction structures in leasing

5. Leasing is anchored on the business philosophy that profits are earned through the use—rather than the ownership—of equipment and assets. A basic principle in medium- to long-term lending is that cash generated by the investment that has been partly financed should be the primary source of repayment. The collateral that is provided as security for the loan serves as a secondary source of repayment, in the event that the borrower is unable to repay the loan from cash generated by business operations. For short-term loans, the asset conversion cycle, rather than long-term profitability of the business and cash generation, is more critical to an assessment of the probability of loan repayment. Conventional asset-based loans offered by banks focus on both a primary source (cash flow generation or asset-conversion cycle) and a secondary source (credit enhancements and collateral) of loan repayment by the borrower.

6. In contrast, leasing is more intensely focused on the lessee's ability to generate cash flow from business operations to service lease payments, because the lessor-financier retains ownership of the asset during the term of the lease. This would make leasing well-suited to MSB activities which seldom have historical credit information or formal financial statements. The prime impact of leasing is to increase a business entity's total availability of capital from an external source, leaving its own sources of capital available for other productive uses. The additional revenue generated by the use of the leased asset should be sufficient to meet the monthly lease rental payments to the lessor.

7. While lease payments are deductible as a tax-qualifying expense for the lessee, this would not be the principal attraction for MSBs. The informal structure of MSB operations does not facilitate structured record-keeping for income tax purposes. Additionally, a major issue is whether tax authorities are able to keep informally-organized business enterprises within their regulatory loop. The operating circumstances of MSB may be such as to render the benefits of tax-shield expenses inconsequential.

8. Conventional asset-based financing from a bank generally requires a borrower to provide up to 40% of the cost of the asset to be acquired, since a loan may cover only 60% of the asset value. In some cases, the bank providing the loan may require the borrower to put up as security another asset in addition to the one being acquired (e.g., real estate in the urban center). Or, additional security enhancements (e.g., assignment of bank deposits, marketable securities, trade receivables or third-party guarantees) may be required by the bank providing the loan. The collateral provided as direct or additional security very frequently will have a discounted value for loan purposes, in accordance with prevailing banking regulations.¹ The required equity component, alternative security and collateral enhancements increase the effective cost of a financing package and thereby narrows and restricts access of borrowers to financing. Moreover, 3 - 5 year term financing for equipment acquisition is frequently not available in developing countries,

¹ Examples of asset-value discounting, for loan purposes, in Swiss and German banking law are cited in Sections 2.3 and 2.4 of Bernd Balkenhol and Haje Schutte, Collateral, collateral law and collateral substitutes, International Labour Office (Poverty-oriented Banking Programme), Geneva, 1996.

as conventional bank loans are usually structured on a well-secured short-term (i.e., one-year or less) basis.

9. In contrast, a lease arrangement typically requires the owner/borrower to provide and fund 10% of the asset cost as up-front security deposit. The asset itself serves as collateral for the transaction since ownership of the asset is retained by the lessor during the term of the lease. Thus, leasing involves simpler and better security arrangements and could potentially reduce collection problems. Additionally, in markets where the leasing industry has developed and specialized in a well-defined range of types of equipment, a lively market for leased equipment has usually developed as well. Certainly, this is not always the case, and a lively market would not be thriving especially if maintenance is deficient on leased equipment.

Basic structure of leasing

10. Financial leasing is a contractual arrangement between two parties, which allows one party (the lessee) to use an asset owned by the other (the lessor) in exchange for specified periodic payments. The lessee uses the asset and pays rentals to the lessor, who legally owns it. The legal owner relies on the ability of the user to generate sufficient cash flows to make lease payments, rather than relying on its assets, capital base or credit history. Knowledge about results of business operations generates indicators of the adequacy of prospective cash flows. This knowledge provides some form of substitute information for credit history that would otherwise not be available if formal financial statements were insisted upon. Security for the transaction is provided by the asset itself. Thus, leasing enables borrowers without well-developed balance sheets or credit histories (especially new or small business entities) to access the use of capital equipment in cases where they would not be able to avail of and qualify for traditional commercial bank lending. In spite of its long history as a financing technique, leasing has evolved considerably only in the last 40 years from being an equipment manufacturer's selling technique into a specialized financial service.² Basic types of leasing arrangements are summarized in Box 1 below.

² IFC (Laurence W. Carter et al.), Leasing in Emerging Markets. Washington, DC: The World Bank and International Finance Corporation, 1996, pp. 7-8. The paper cites how leasing has been important in the growth of the Bell Telephone Company, cotton looms, electricity and gas meters in the 19th century. The growth of the aircraft and automotive industries further stimulated the development and evolution of leasing into a specialized financial service, aside from being a manufacturer's marketing tool.

Box 1. Types of Leasing Arrangements

- **Financial leasing** is an alternative to bank loan financing for equipment purchases. The lessor buys the equipment chosen by the lessee, who then uses it for a significant period of its useful life. Financial leases are also called full-payout leases because payments during the lease term amortize the lessor's total purchase costs (residual value is typically between 0% - 5% of original acquisition price), cover his interest costs and provide him profit. The lessee carries the risk of obsolescence, and costs of maintaining the asset in good working condition and insuring it. The lessee typically has the right to purchase the asset at the end of the lease contract for a nominal fee.
- **Hire-purchase** is a hybrid instrument also providing an alternative to bank financing for the purchase of equipment. The instrument is typically used for retail or individual financing of motorcycles, sewing machines, refrigerators, and other small ticket items. The lessee tenders a higher down payment (sometimes up to 30% of the purchase price) and, with each lease payment an increasingly higher percentage of ownership is transferred to the lessee, thus building up equity. Ownership transfer is automatic once all required payments are made. Compared to a financial lease, this arrangement is judicially less secure for the lessor because the lessee is part owner of the asset. On the other hand, lessees have a sufficiently large stake in the equipment being acquired, to avoid the risk of losing that stake through default.
- An **Operating lease** is not a means to finance equipment purchase. The lessee contracts for short-term use of equipment the leasing company has on hand, e.g., car rentals. The lessor recovers capital cost of the equipment from multiple, serial rentals and the final sale of the asset. Maintenance costs and risks of obsolescence are borne by the leasing company.

*Source: IFC, **Leasing in Emerging Markets**. Washington, DC: 1996.*

Advantages offered by leasing

11. Leasing can become an important financing technique for enterprises in the MSB category because of the way business entities finance operations from three main sources of capital: internally-generated cash, bank loans and capital markets. In most developing countries capital markets are relatively undeveloped and banks often prefer to lend to larger, well-established businesses that have a profitable track record and can offer stronger security. Also, banks are often unable or unwilling to undertake term lending. New or small business entities without strong collateral, or which operate in countries with weak or absent laws for enforcing rights to take possession of security, generally have limited access (if any) to traditional bank lending. Leasing or supplier's credits may be the only recourse to external financing, because ownership of the asset financed does not transfer to the borrower until after the lease obligation has been fully discharged.

Advantages to Lessees

12. Although leasing is generally perceived as a high-spread business it offers the lessee a number of advantages in comparison to conventional bank financing:

- **Availability.** In most developing countries leasing may be the only form of medium- to long-term financing available for purchase of equipment that can expand production levels or increase productivity of workers.
- **Simpler security arrangements,** in combination with less stringent requirements for historical balance sheets mean that new small and micro-enterprises can access lease finance more easily than bank loans.
- **The up-front cash down-payment or security deposit** required in a lease contract is lower than the equity component or stake in conventional bank financing. Thus, leasing can finance a higher percentage of the capital cost of equipment thereby allowing the business entity to preserve its cash resources or existing bank facilities to meet working capital needs. Leasing contracts can more easily be structured to match the cash flow generation of the lessee's business. In some cases, the down payment (security deposit) required may be less than the typical 10%.
- **Leasing can be arranged more quickly and simply** than conventional bank loans because additional security often does not need to be established. The costs of assigning additional collateral, documentation and processing times for bank loans can be significant (since these are typically fixed and not related to the size of the loan), and usually offset the higher spreads in leasing. In the case of Pakistan, Orient Leasing Pakistan Limited (OLP) tries to ensure a 4 to 5 day turn-around for decisions on lease financing applications.
- **A satisfactory understanding of rights and obligations** under a lease contract can serve to minimize or eliminate adverse decrease in service or resale value of leased equipment arising from deficient maintenance activities. To achieve this, a lease contract will have to incorporate periodic inspections of the leased equipment to confirm adherence to a maintenance program and assessment of equipment value. This kind of procedure would be part of a lease portfolio administration program and is analogous to the loan portfolio administration program of a bank lender.
- **Tax incentives are available through lease financing.** Lessees can offset their full lease payments against income before tax, compared to the depreciation allowance or the interest charges on bank loans. This may not be a primary attraction for small businesses and microenterprises, whose cash flow-driven operations in informal markets are not conducive to record-keeping for income tax purposes. However, lessors may be able to pass on to lessees some tax benefits related to the depreciation charges they can book as owners of the

asset leased, by lowering their financing costs or reducing their spread between funding cost vis-à-vis lease discount factor.

13. For the lessee the chief advantage that lease financing presents is a significantly lower discounted present value of cash disbursements over the term of the lease compared to the discounted present value of payments associated with bank-financed acquisition of an asset. The reason is that the aggregate periodic lease rental payments, which are a combination of interest-related financing costs and payments against principal, can be booked by the lessee as a business expense to shield against tax liability on income realized. The asset financed through a lease is depreciated over the life of the lease, a period shorter than its economic life.

14. On the other hand, the depreciation expense shield against tax liability in an asset acquisition financed by a conventional bank loan is for a longer period (the prescribed useful life of the assets) and a correspondingly smaller amount. If the asset to be acquired has a useful life of say, 5 years, a four-year lease financing arrangement effectively depreciates the asset over 4 years. In contrast, conventional bank loan financing for a similar four-year term will only provide an 80% tax shield (= 4 years depreciation) during the term of the loan.

15. Table 1 below summarizes the comparative advantage of lease financing, using a lease discount factor of 18%, over conventional bank financing at an annual percentage rate of 18%, for acquiring a ₱ 200,000 asset over a four-year term.³ The present value analysis in Table 1 below shows lease financing with a 17.5 % advantage over outright purchase of the asset through bank loan financing, when the impact of the tax shields is a prime consideration. When the tax shield is not an important consideration, or is irrelevant for the lessee (as might be the case for owners of MSBs), the discounted present-value advantage of leasing over conventional bank financing is much smaller at ₱ 3,952 or a difference of only 2.1 % over the relevant time period.

³ The numerical example is based on a hypothetical lease using Philippine tax rates and lease contract rates of BPI Leasing, as discussed with Mr. Cesar Tejada, President - BPI Leasing Corporation (Philippines), November 5, 1996.

Table 1. Present Value Analysis: Lease Finance vs. Financed Purchase

Period	Lease Finance	Cash Flow £	Discount Factor (18%)	Present Value £
0	10% Security deposit	20,000	1.0000	20,000
0	1% Front-end fee	2,000	1.0000	2,000
Year 1	Tax shield on front-end fee	(700)	0.8475	(593)
	Monthly lease rentals	5,364.72		
	Total lease rentals	252,137.14		165,851
	Tax shield on lease rentals	(88,247)		(60,235)
Month 48	Refund of security deposit	(20,000)	0.4894	(9,787)
Month 48	Payment of residual value	20,000	0.4894	9,787
	Total, with tax shields			127,023
	Total, without tax shields			187,851
Period	Financed Purchase	Cash Flow £	Discount Factor (18%)	Present Value £
0	Acquisition cost	200,000	1.0000	200,000
0	Equity down-payment	80,000	1.0000	80,000
	Monthly amortizations	3,047.21		
	Total amortization payments	182,832		111,703
	Annual depreciation (5 years)	40,000		
Years 1-4	Tax shield (Depreciation)	(56,000)		(37,660)
	Total, with tax shields			154,043
	Total, without tax shields			191,703
With tax shields: Leasing advantage: in £				27,020
as %				17.5 %
No tax shields: Leasing advantage: in £				3,952
as %				2.1 %

Source: Appendix Table 1.

16. The probability is high that the tax shield factor might be irrelevant for informally organized MSBs which can easily escape the jurisdiction of tax regulators and collectors. The tax shield factor is irrelevant to the borrower when that borrower is able to avoid taxation of income. Leasing still would present an advantage because the up-front down payment or security deposit in a lease contract is 10% or £20,000 versus £80,000 or 40% equity stake under bank financing. With leasing the borrower has £60,000 more available for operating capital. Moreover, the discounted present value of lease rental payments is £187,851 compared to the discounted present value of loan amortization payments totaling £191,703 when the impact of tax shields is ignored or removed in both leasing and bank financing techniques.

Advantages to Lessors

17. Leasing provides to lessors profitable new opportunities to reach borrowers and expand into existing markets. The rapid growth of leasing in a broad cross-section of countries indicates that leasing as a financial product has addressed an important unsatisfied demand for financing and, at the same time, attracted borrowers away from the more traditional financial products such as bank loans. The advantages that leasing offers to lessors includes the following:

- The lessor purchases the equipment directly from the supplier after the lessee has made his choice, which eliminates the opportunity for the lessee to utilize the borrowed funds for other purposes and, in some cases, creates an opportunity for lower pricing of equipment based on fleet or volume sales.
- Comparatively simpler documentation and speedy processing can keep transaction costs down, permitting leasing companies to efficiently achieve high volumes and manage their costs. This is in some ways analogous to the general experience in microfinance in which simplification of transaction processes and reaching critical mass in business volumes make it possible to obtain a beneficial impact on administrative costs. This has been the experience of OLP in Pakistan and of BPI Leasing in the Philippines.
- The lessor uses the expected investment yield in calculating periodic payments to be paid by the lessee under the lease contract and quantifies more easily the margins between funding and transaction costs on the lease contract. The expected investment yield will include the lessor's tax advantage from depreciation expense and, when conditions warrant, the lessor may be prepared to pass on to the lessee part of this advantage through a lower lease discount factor.⁴
- Leasing companies are typically not deposit-taking institutions and therefore may be subject to less stringent regulations than banks, permitting them higher leverage than other financial institutions and liberating them from directed lending mandates and quotas often imposed on banks by government policy. On the other hand, leasing companies have to source their funding from the more volatile and higher-costing money markets. Moreover, medium to long-term funds may also be in short supply in the domestic financial market.
- As legal owner of the asset financed the lessor has a stronger security position whereby enforcement of security rights upon non-payment is potentially simpler, less cumbersome and less costly since no court action is required. Moreover, a lively market might begin to develop for previously-owned equipment, including among leasing companies,⁵ particularly as the lease financing sector develops.
- The tax advantage of lease financing compared to conventional financing is that the lessor, as legal owner of the asset financed can take the benefit of depreciation expense as a shield against taxes on revenue realized from the

⁴ The lessor may not necessarily benefit from the depreciation allowance factor in a lease contract because tax authorities are increasingly taking the view that depreciation is a tax-deductible expense only for operating (but not financial) leases.

⁵ Bernd Balkenhol and Haje Schutte, Collateral, collateral law and collateral substitutes, Poverty-oriented Banking Programme, International Labour Office, Geneva, 1996. p. 14. It should also be pointed out that a market for repossessed equipment may not exist, particularly when the types of equipment financed are too narrowly specialized. However, a narrow or limited market for repossessed or foreclosed would affect both leasing companies as well as commercial banks providing equipment financing.

lease. In conventional bank financing, the lender does not have that depreciation expense as a shield against taxes on interest revenue realized from the financing. This advantage to the lessor is becoming less clear, because tax authorities in a number of countries appear to be taking the viewpoint that depreciation should qualify as a tax-deductible expense only for operating lease contracts, but not for financial leases. If this viewpoint spreads among tax authorities in a larger number of countries, an important financial benefit to lessors will be lost.

18. Leasing thus has the potential to facilitate investment in capital equipment and promote development of industry in general, and certain segments of the MSB sector in particular. Beyond improving access to sources of finance, leasing would broaden competition in financial services, and introduce business and financial institutions to innovations in financial instruments and techniques. In facilitating the financing of imported capital equipment, leasing can perform an important role in the transfer and application of new technology to domestic production processes.

III. Characteristics of MSBs suitable for lease financing

19. There does not appear to be a hard and fast universal rule for classifying independent enterprises strictly into either the microenterprise or small business categories. Different countries have different bases and considerations for defining and classifying business enterprises as medium-size or small-scale and, often, microenterprises are subsumed into the small-scale enterprise category. These classification guidelines and procedures usually exist in the context of directed-credit or targeted-credit programs promoted by government through legislation.⁶

20. The MSB sector is not monolithic and can be categorized into different strata or layers, which can be useful in the design of MSB assistance programs and in more precisely identifying target groups for leasing. For example, the financial assistance that MSBs in the lowest strata need most is access to working capital to finance purchases of supplies and materials, and the financing services appropriate to their needs and repayment capabilities will be characterized by short cycles of repeated loan drawdown and repayment. The enterprises in this lowest layer of MSBs will not be suitable candidates for lease financing.

21. MSBs in the middle and upper strata require financing for the acquisition of additional tools and equipment to support growth and expansion of their production. Therefore, the financing appropriate to their needs will be for loans of larger size and longer maturities to fit the cash-flow generation patterns of their businesses and to support their transformation from marginal enterprises into sustainable businesses in the formal, organized sector. Without financing in larger amounts and for maturities than those typical in minimalist microfinance techniques, a number of these MSBs are caught in a gray area in which a thriving business may fall into stagnation.⁷ Thus, MSBs in the middle and upper strata are important targets for "transformation lending" and will benefit most from the expanded access to financing that leasing provides. A useful example of how MSBs are classified into different strata for product positioning and service targeting purposes is the approach used in the Pakistan Microenterprise Project, which is shown in Box 2 below.

⁶ An illustrative example is the case of the Philippines where banking institutions have been required by the Central Bank to extend loans to small- and medium-size enterprises (SME) through a credit quota system. The volume of loans to be made available is a percentage of total loanable funds of a bank. A SME law also established a government-funded and -operated loan-guarantee program for small- and medium-size enterprises, defined by the enterprise's number of employees and asset size.

⁷ Larry R. Reed and David R. Befus, "Transformation Lending: Helping Microenterprises Become Small Businesses", in Maria Otero and Elisabeth Rhyne (eds.), The New World of Microenterprise Finance, West Hartford, CT: Kumarian Press, 1994.

Box 2. Categories of MSBs	
•	Lower Stratum MSBs are mostly borderline subsistence or marginally profitable businesses, representing the business efforts of individuals who, while not the poorest of the poor, are at the fringe of the economy and trying to integrate. This category has the largest concentration of women workers and entrepreneurs. Typical businesses are barber shops, embroidery, small bakeries, food shops and confectioneries, traditional cosmetics, soap, candle making, repair shops for bicycles, sewing machines and shoes.
•	Middle Stratum MSBs comprise those that are interested in expansion—financially viable and relatively stable family businesses. This broad middle range also includes female workers and entrepreneurs. The activities include repair shops (e.g., motor cycles, TVs, watches, electric fans), carpet weaving and rug making, sporting goods (e.g., soccer and volleyballs, cricket bats), flat cloth products, and small brass, copper and stainless steel items (e.g., cutlery), furniture making, shoe making marble products, plastic toys and household goods, etc.
•	MSBs in the Upper Stratum are composed mostly of profitable and technologically more sophisticated businesses with the potential to “graduate” into the small-scale end of the formal sector. The typical business activities in the group are simple electric appliances (e.g., electric fans), small surgical instruments, sub-contracting and assembly of appliances (e.g., washing machines, gas cookers and heaters), iron grate and grill making, hand tools, chemical detergent, welding and light engineering (e.g., auto repair, machine shop and spare parts for bicycle, carts and automotive components).
Source: Pakistan Microenterprise Project, SAR Report No. 9070-PAK, The World Bank	

22. MSBs are found in unregulated and highly competitive market segments which are characterized by free entry and exit. They are mainly household-based family businesses (excluding crop production, by conventional understanding), with employees that number as much as ten, including the owner-operator and any unpaid family workers. MSB activities are typically classified in censuses and surveys as business establishments managed on own account and employing less than ten workers. MSBs are operated as income-generating or employment-creating activities that rely mainly on indigenous resources, and utilize labor-intensive and adapted technology with skills acquired outside the formal academic or vocational schooling systems. With limited access to financial institutions in the formal sector, they mobilize needed external resources principally from the informal financial sector.

23. MSBs encompass a wide spectrum of often informally organized business activities, with significant variances in terms of sector classification, levels of male and female employment, usage of fixed assets, need for working capital, technological complexity and sophistication, productivity and profitability. The MSB subsector as a whole has been able to grow rapidly in size, as measured by percentage of the economically active population employed in MSB activities or by their contribution to aggregate value added. In most developing countries the MSB sectors comprise the largest segment of manufacturing, commerce and industry sectors. The growth has been achieved without being encumbered by numerous government regulations related to

investment incentive systems that have often constrained operations of larger enterprises in the formal sector of the economy.

24. Size of an enterprise is commonly measured by the number of workers, because statistics on employment are more easily available and the fact that employment size is more easily envisaged. In industrial countries small-scale often means less than 200-300 workers. However, in developing countries the average plant size is typically smaller, and an enterprise with 1-49 workers is generally recognized as small-scale. Finer distinctions may be appropriate, depending on the specific issues under consideration. Other measures of size are the value of capital or assets employed, or volume of sales revenue in a given year. Discussions in various forums about the concept of the "informal" sector have led to a general understanding that enterprises in this informal sector are labor-intensive, provide goods and services for the poor by the poor, and offer opportunities to absorb much more employment than do larger firms for any given level of investment.⁸

25. Notwithstanding the diversity of MSB activities, the two most important characteristics common to all MSBs operating in the informal sector are (a) extremely limited access to institutionalized sources of finance, and (b) significant lack of access to business support services such as quality maintenance and control, record-keeping, marketing linkages and efficient business management. The limited access to external finance from institutional sources and the reliance on own sources of capital result in much lower tolerance for operating losses in comparison with the much larger enterprises. The MSB entrepreneur can protect operations against this risk through operative relationships with suppliers and buyers, but usually at the expense of earnings. The related results of "captive relationships" are restrictions on MSBs for sources of business support services as well as for information, particularly about better production and processing technology and emerging market opportunities.

26. The vast majority of private sector firms start very small in terms of both capital and the number of employees. The bulk of initial capital is most often provided by the business promoter's own savings, with funding contributions from friends and relatives. Bank loans are very rare, as is recourse to moneylenders. Bank loans are available in modern industries for which the firm start-up size is not so small, or if the entrepreneur is already established and running other businesses and therefore has an observable and verifiable reputation. As a firm grows in size, the probability of its borrowing from banks improves quite rapidly. Controlled capital markets are likely to penalize small or medium-size firms (covering about 20-100 workers) that aspire to rapid growth which cannot be supported entirely from their own nonformal sources of finance.⁹

27. Nonformal financial markets have dominated the provision of the financial needs of microenterprises. Aside from the savings of the owner-operator and supplemental but

⁸ See, for instance, I. M. D. Little, "Small Manufacturing Firms in Developing Countries", The World Bank Economic Review, vol. 1, no. 2, p. 212-213.

⁹ I. M. D. Little, "Small Manufacturing Firms in Developing Countries", The World Bank Economic Review, vol. 1, no. 2: pp. 203-235.

limited funds from family and friends, the other nonformal financing sources consist of suppliers' credits in the form of trade credit, buyers' advances (either in cash or in raw materials and supplies), moneylenders, various "club" systems pooling membership savings for loans, credit cooperatives and NGOs. The costs of financing facilities in the nonformal sector are typically twice or more than the prevailing interest rates charged by institutions in the formal sector. Moreover, a number of developing-country governments control interest rates and influence the allocation of credit, usually in favor of large-scale modern industry and exporters. This either drives up interest rates to MSBs or, if lending rates are controlled, enables even fewer small firms to obtain credit. The smaller the enterprise, the more likely it is to be denied credit from formal sector institutions.

28. Data available from the experience of various countries indicates that the MSB sector is an important, large and growing subsector of many countries in terms of value added generated and number of the labor force absorbed.¹⁰ Equally important are the subcontracting linkages between MSBs and the larger industrial firms in urban areas as well as between them and the agricultural sector in rural areas. It can then be argued that it is possible to achieve relatively high impact on productivity and output of MSBs by means of additions to equipment used in production and application of new technology to operations. Lease financing is especially suited for this role of providing the financial resource for acquisition and use of equipment and new technology by MSBs, leaving the borrower's nonformal sources available for working capital needs. Box 3 below summarizes financing options available to small businesses and microenterprises with and without a leasing industry.

Box 3. Financing Options		
	Enterprises without assets for loan collateral	Enterprises with assets (typically land) for loan collateral
Without a leasing industry	Relatives and friends Supplier's (trade) credit Moneylenders Internal funds	Bank loans Supplier's (trade) credit Capital markets Internal funds
With a leasing industry	For equipment purchase: Leasing For working capital: Relatives and friends Supplier's (trade) credit Moneylenders Internal funds	For equipment purchase: Leasing For working capital: Bank loans Supplier's (trade) credit Capital markets Internal funds

¹⁰ MSBs employ a substantial portion of the economically active population in the informal sector, particularly in developing countries. In the Statistical Yearbook of the International Labour Organisation (ILO), the pertinent classification would be employer/self-employed for own account and the non-compensated household members employed in family enterprises categories. ILO statistics show that almost 60% of the economically active population is employed in business establishments in the informal sector. In Sri Lanka, it is reported that 80% of industries are composed of MSBs. Similar observations have been made in other countries like Bangladesh, the Philippines and Indonesia in a number of studies and reports on microenterprise development.

IV. A review of some experience in leasing for MSBs

29. The Bank has been actively involved in packaging lending programs for small and medium enterprise (SME) development since 1973, when it extended the first SME loan to Bangladesh. Beginning in 1991, Bank loans for free-standing projects that target SMEs directly appeared to have slowed down, even though loans for SMEs begun to be incorporated in various rural development projects, industrial lines of credit and other lending projects for private enterprise and private sector development. Explicit Bank-financed support for small and medium enterprise development has fragmented and been made available in the form of "disguised" SME loans and a series of SME components incorporated into other types of projects.¹¹ On the other hand, Bank lending programs for microenterprise development (which have included SME components) proliferated between 1989 and 1993.

30. In the case of the IFC, its most important approach to financing SMEs has been indirect, by promoting domestic financial institutions that target small and new firms. IFC has used three main mechanisms: (a) sponsoring and investing in leasing companies; (b) making loans to banks for on-lending to SMEs; and (c) promoting venture capital funds which provide SMEs with equity and managerial advice.¹² IFC has not had a specific project to promote access by microenterprises to leasing as a financial resource. However, it should also be noted that some of the leasing companies and venture capital firms that have been supported by IFC to support and promote the development of small and medium enterprise have been moving towards smaller-sized enterprises not only in the urban areas but, most importantly, in the secondary urban centers and the countryside.¹³ It can be argued, then, that the potential is great for support from the IFC as these firms develop and acquire "information capital" about MSBs — particularly because of subcontracting linkages and relationships that these relatively larger-sized businesses may have with MSBs.

31. Insofar as the Bank is concerned, the Pakistan Microenterprise Project Loan has a specific lease-financing component to provide funds for onlending to viable MSBs through leasing companies that meet eligibility criteria. Project files indicate that the program continues to be quite successful, as regards outreach to the target market of MSBs and the loan recovery rate of the participating leasing company, Orient Leasing Pakistan Limited (OLP).¹⁴ The Project is the first direct assistance to microenterprises extended by the Bank to Pakistan.

32. The Bank, together with a number of multilateral and bilateral donors, has also supported a number of projects that promote the application of simple but innovative technology. The most notable has been in the development and application of alternative energy systems in which the ultimate beneficiaries are poor households and MSBs in

¹¹ Leila M. Webster et al., World Bank Lending for Small Enterprises 1989-1993, The World Bank, Washington, DC: September 1995

¹² IFC, Leasing in Emerging Markets, The World Bank, Washington, DC, 1996.

¹³ Examples of this are BPI Leasing and All Asia Capital & Trust in the Philippines.

¹⁴ Pakistan: Microenterprise Project (Ln. 3318 - PAK) for \$ 26.0 million, approved April 23, 1991 and which became effective April 30, 1992.

which leasing and hire-purchase arrangements have been used as the means to finance acquisition of solar power-based energy systems. Some notable examples are cited below.

- Kenya is the major success story to date for large-scale private sector propagation of household photovoltaic (PV) systems. While the deployment of PVs on a significant scale began in the early 1980s and was carried out almost entirely within government and donor project, a dynamic and competitive private sector seized the market opportunity presented by PVs and has been the major factor in the widespread diffusion of PVs. At least 60,000 units have been sold between 1987 and 1996, surpassing the total number of rural consumers connected under the national power utility's Rural Electrification Programme. Heavily subsidized programs that rely on the donation of solar systems to rural communities have had an extremely poor performance record, and the Kenya experience is noteworthy in that the government has adopted a hands-off attitude toward private sector solar systems activities and thereby allowing market forces to sustain demand for PV units.¹⁵
- The hire-purchase variant of lease financing is used in the Indonesia Presidential Assistance Project (BANPRES, 1993), Solanka/Sun Societies - Sarvodaya project in Sri Lanka and the Gansu project in China, while direct consumer financing and financing through a cooperative-association energy service company (ESCO) are the approaches that have been used in solar PV projects in Tuvalu, the Dominican Republic, Sri Lanka, Philippines, Indonesia and Kenya.¹⁶

33. The Grameen Bank in Bangladesh, which is globally the most prominent microfinance institution because of its outreach and credit delivery philosophy, is also engaged in providing lease financing as part of its array of financial services to MSBs.¹⁷ Grameen Bank's lease financing program has been comparatively less publicized than its regular microfinance program but utilizes fundamentally the same credit evaluation, administration, delivery, collection and pricing methodologies. Therefore, Grameen Bank is able to take advantage, in its lease financing operations, of external economies provided by its existing microfinance operations.

34. There are similarities between the Bank-supported lease financing component of the Microenterprise Project loan in Pakistan, and the lease financing operations of Grameen Bank in Bangladesh. These two programs, plus the BANPRES PV project in Indonesia and Solanka/Sarvodaya PV project in southern Sri Lanka use lease-financing methodologies, while the recently approved Solar Home Systems (SHS) Project in

¹⁵ Gerald Foley, Photovoltaic Applications in Rural Areas of the Developing World, Energy Series, World Bank Technical Paper No. 304, The World Bank, Washington, DC, 1995.

¹⁶ Anil Cabraal, Mac Cosgrove-Davies and Loretta Schaeffer, Best Practices for Photovoltaic Household Electrification Programs: Lessons from Experiences in Selected Countries, World Bank Technical Paper No. 324. The World Bank: Washington, DC, 1996.

¹⁷ Letter from Prof. H. I. Latif, Managing Director - Grameen Trust, January 26, 1997.

Indonesia uses a hire-purchase structure. The similarities in lease financing operations between the Pakistan Microenterprise Project and Grameen Bank are summarized below:

- Firstly, the lease financing technology is compatible with procedures and foundations of Islamic banking.
- Secondly, the entities providing the lease financing services have well-entrenched familiarity with the microenterprise market segments being opened up to leasing as a financial product, which is indispensable for controlling and managing credit risk.
- Thirdly, the entities (OLP and Grameen Bank) already have in place the organizational resources to cultivate and service the MSB sector for lease financing, because of existing operations in the same or related geographical areas and market segments.
- Finally, both entities have the stature and capability to access resources from the formal financial sector to support their thrusts into lease financing for MSBs, which backstops a competitively-priced (i.e., spread over funding cost) lease finance product.

35. The hire-purchase variant of leasing is the end-user financing mechanism that the Indonesian SHS Project¹⁸ will utilize. The Project is intended to assist a phased and targeted penetration of regional rural markets for solar PV systems that “are essentially commercial” but whose initial market development is delayed and constrained by high transaction costs or perceived commercial risks due to unfamiliarity with this type of investment. To establish a sustainable initial base for further expansion of the solar PV systems market the target segment for market entry would primarily be rural households and small commercial establishments which are “electrically isolated” from the grid, but in reasonable geographical proximity to urban centers. The target market segment will be empowered by the financial intermediation design of the Project to acquire solar PV systems for use in the household or in business operations.

36. The credit component of the Bank loan is designed to support the sale and installation of 200,000 solar PV systems (10 Mwp) for homes and commercial establishments, thereby providing the modern energy form of electricity to about one million people in rural areas in three selected regional markets centered around the provinces of West Java, Lampung and South Sulawesi. In the intermediation structure that has been designed, the credit component provided by the Bank would flow from the Bank of Indonesia to Participating Banks to SHS dealers, to enable them to sell the systems on an installment plan basis to rural households and small commercial establishments. These ultimate beneficiaries of the Project would acquire the solar PV

¹⁸ Indonesia Solar Home Systems Project (SAR, Report No. 15983 - IND, Indonesia Policy and Operations Division, Country Department III, East Asia and Pacific Regional Office, The World Bank, Washington, DC: December 17, 1996.

systems from the accredited SHS dealers through a modified lease finance (i.e., hire-purchase) scheme.

37. SHS dealers (which are private enterprises) will be responsible for procurement of components, installation and maintenance on sales of systems to rural households and small commercial establishments, under hire-purchase contracts. The customer's down-payment (estimated to be in the range of US\$ 75-100 equivalent, after a GEF grant payment of US\$ 75 - 125 per unit installed on the buyer's behalf) will be augmented by the hire-purchase financing extended by the dealer, under which the buyer will make monthly installment payments. The total down-payment from the buyer, including the grant portion, would be equal to about 25- 30% of the estimated SHS cost of US\$ 636 - 750 per unit. This level of down-payment brings the acquisition cost of the SHS unit within affordable range. Affordability for the target households and MSBs is further enhanced because the monthly hire-purchase payments, which include a charge for maintenance expenses, are set at a level which approximates the equivalent cost of conventional electricity services from a grid or the monthly expense on kerosene and candles for lighting and other energy needs.

38. The existing government-supported BANPRES project has installed more than 3,300 SHS in 13 provinces since 1991, and has led to commercially oriented initiatives and government-sponsored programs that have installed about 20,000 SHS in households and MSBs in rural areas. Some applications of the SHS in the BANPRES project have been to facilitate pumping of water supplies, similar to some of the experience in other countries. The project uses existing rural structures and capabilities in selecting participating villages, where cooperatives collect down-payments and monthly installments and employ technicians for maintenance services of PV units costing about US\$ 620 each.¹⁹

39. As pointed out above (Box 1) hire-purchase is a hybrid leasing instrument which provides a viable alternative to bank loan financing. The borrower puts up an initial personal ownership stake which is augmented by a matching GEF grant for the SHS package. A meaningful ownership stake is generally an important element in reducing the risk of default on the term financing under the hire-purchase contract. With each monthly lease payment, the borrower builds up equity in the asset, and ownership transfer is automatic once all payments are completed. A major disadvantage of the hire-purchase approach vis-à-vis the financial lease is the issue of "shared" ownership of the asset between the seller/lessor and the buyer/borrower. In the event of default, foreclosure of the asset may be difficult especially if the legal framework is weak or absent, and the asset is in the physical possession of the buyer/borrower.

40. It might be argued that the use of lease financing and its hire-purchase variant to promote alternative and renewable energy applications is directed more for consumption uses which could increase productivity only indirectly, rather than for productive, income-generating MSBs specifically. However, it is important to keep in mind that

¹⁹ Anil Cabraal et al., Best Practices for Photovoltaic Household Electrification Programs: Lessons from Experiences in Selected Countries, Technical Paper No. 324, The World Bank: Washington, DC, 1996.

MSBs are household-based activities, where there may be no clear demarcation between family needs-based activities (like consumption) vis-à-vis income-generating activities. Nonetheless, access to simple technology embodied in equipment that can be powered by alternative energy systems provides a basis for sustaining and expanding the household-based income generating business activity.

41. For instance when lease financing makes possible the acquisition of alternative energy systems that facilitate and increase the household's access to water supplies, productivity of labor is correspondingly enhanced. It is also probable that, in the project design of the alternative energy programs specific statistical data and information on the number of household-based MSB establishments that would directly be benefited simply was not readily available. This would then result in defining beneficiary targets as simply "households and small commercial establishments" rather than better-identified and defined MSBs.

Orient Leasing Pakistan Limited (OLP)

42. The market niche chosen by the company is the medium to small private limited company with assets of Rs 20 - 30 million ($\approx$ US\$ 0.900 - 1.350 million equivalent). The company likewise had already written substantial lease business with the small scale enterprise sector including some leasing business with microenterprises in Pakistan. The main constraint faced by OLP in developing this MSB-oriented business was its lack of Rupee resources. The average lease in its portfolio was Rs 250,000 ($\approx$ US\$ 11,300), consisting mainly of leases of small-ticket equipment, although 34% of contracts written were for leases below this average lease contract amount.²⁰

43. The organization's core competencies are its ability to carry out rigorous credit screening processes on target clients, and the quality of its staff. Its distinctive competence is identification of an unserved market niche in which it operates and where competition is low. OLP does not seek to compete in other market segments but will engage in price competition to hold an existing client. The company culture is to a very large extent determined by the culture of its Japanese parent Orix Corporation. Unlike some other leasing companies in Pakistan, OLP does not normally seek either bank guarantees or other collateral security but satisfies itself as to the continued viability of the business and its ability to generate the required levels of lease rental payments from the asset being leased.

44. When the Microenterprise Project was launched in 1992, OLP was the sole leasing company that satisfied the Bank's eligibility criteria for participation. In 1995, two other leasing companies—Pakistan Industrial and Commercial Leasing Company Limited and Pakistan Industrial Leasing Corporation Limited—were recommended as

²⁰ The monetary size of this average lease contract is obviously much larger than the typical amount for a microfinance loan -- especially because microfinance transactions highlighted in the literature deal with short-term revolving loans for working capital, and seldom for equipment financing. The experience of a number of microfinance institutions, however, shows that financing for equipment and tangible assets is generally for larger amounts and longer terms.

participating institutions in the program. Among the criteria important to the Bank were percentage of portfolio current and not overdue, extent of lease contracts to MSBs, and access to long-term funds other than those from the Bank.

45. The results of OLP's participation in the Project are summarized in the analysis tables on MSB sub-projects financed by OLP under the Microenterprise Project which are shown in Tables 2 and 3 below ²¹.

46. Of the total amount of Rs 178.5 million for 669 projects onlent by OLP [as of September 1994], 75% or Rs 133.5 million were taken up by 400 lease contracts for small scale businesses, and 25% or Rs 45.0 million were for 269 lease contracts for microenterprises. The average size of lease contracts was Rs. 167,300 ($\approx$ US\$ 7,600) for microenterprises, roughly half of the average of Rs. 333,800 ($\approx$ US\$ 15,300) for small scale businesses. For microenterprises, 83% of the number of leases were for contracts Rs 250,000 ($\approx$ US\$ 11,300) and below, and these leases took up 57 % of the total amount of leases financed by OLP for microenterprises. It is interesting to point out that within this category of lease contracts below Rs 250,000 lease contracts for Rs 100,000 ($\approx$ US\$ 4,500) and below comprised 41.6 % of the total number.

Table 2. Size Classification of Leases Financed by OLP under the Project
Percentage Distribution, by Number and Amount

Size of Leases in Rs	Microenterprise		Small Scale Business		Total	
	Number	Amount	Number	Amount	Number	Amount
Up to 100,000	41.64 %	14.28 %	19.5 %	4.1 %	28.40 %	6.70 %
100,001-250,000	41.65 %	43.04 %	32.0 %	16.29 %	35.87 %	23.03 %
250,001-500,000	13.03 %	26.87 %	30.25 %	33.65 %	23.32 %	31.96 %
500,001-1,800,000	3.72 %	15.81 %	18.25 %	45.90 %	12.41 %	38.32 %
Total, %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Total, in # & Rs.	269	45,000,972	400	133,508,787	669	178,509,759
Ave. Lease, Rs.		167,290		333,777		266,830

47. For both microenterprises and small-scale businesses, about two-thirds of leases were for machinery and equipment, as shown in Table 3. For lease contracts to microenterprises, office equipment accounted for 20%, slightly higher than the similar category of leased assets for small-scale businesses. Lease contracts for commercial vehicles comprised 15% of the total of leased assets for both microenterprises and small-scale businesses. The microenterprises that were clients of OLP belonged predominantly to the services sector, followed by the steel and engineering, and garments, jute and allied activities sectors. In contrast, of the small-scale businesses accessing OLP's lease financing program, 21% were from the services sectors, 15% in steel and engineering and 6.6% in chemical and pharmaceutical sectors.

²¹ Aide Memoire, Back-To-Office Report, Bank Review Mission, September 1994.

Table 3. Type and Industrial Distribution of Assets Financed by OLP under the Project
Percentage Distribution, Based on Contract Values

Type of Asset	Microenterprise	Small-Scale Business	Total
Machinery & Plant	64.91 %	67.91 %	67.16 %
Office Equipment	20.06 %	16.73 %	17.57 %
Commercial Vehicles	15.03 %	15.36 %	15.28 %
Total	100.00 %	100.00 %	100.00 %

Industry Sector	Microenterprise	Small-Scale Business	Total
Energy	0	0.73 %	0.55 %
Services	35.14 %	20.93 %	24.51 %
Consumer Goods	1.83 %	4.76 %	3.56 %
Textile & Allied	2.61 %	7.24 %	6.07 %
Trading	1.48 %	4.03 %	3.38 %
Paper, Board & Printing	2.76 %	1.59 %	1.88 %
Construction	0	1.57 %	1.18 %
Chemical/ Pharmaceutical	2.03 %	6.60 %	5.45 %
Steel & Engineering	10.01 %	15.00 %	13.74 %
Ceramics	0	0.44 %	0.33 %
Food & Allied	1.66 %	8.75 %	6.54 %
Garments, Jute & Allied	9.60 %	11.21 %	10.81 %
Miscellaneous	32.89 %	18.32 %	21.99 %
Total	100.00 %	100.00 %	100.00 %

Source of data: Aide Memoire, Back-To-Office Report, Bank Review Mission, September 1994.

Grameen Bank, Bangladesh

48. Grameen Bank started leasing power-looms in 1992 to poverty-level weavers in the Araihaazar area of Dhaka Zone. Successful implementation and satisfactory experience led to expansion of the leasing program to other zones. At present, all fourteen zones covered by the bank's operations have incorporated leasing into their microfinance programs. As of October 1996, the leasing program had booked 1,951 leases amounting to Tk. 61.738 million, or an average of Tk 31,645 ($\cong$ US\$ 760) per lease contract.

49. Grameen Bank's leasing program has achieved loan repayment and default rates which are consistent with the bank's regular microfinance program -- 139 leases out of 1,951 in default, a 7.12% default rate in terms of number and 1.47% in terms of value of lease contracts. Also, 18.35 % or 358 out of the 1,951 lease contracts have moved into ownership of the equipment financed. The pattern of ownership after full payment is striking -- 344 female as against 14 male, which follows the pattern of distribution for lease contracts of 1802 female lessees as against 149 male lessees. Grameen Bank's leasing program exhibits a wide variety of equipment financed—from battery chargers and ball-point pen production machines to power looms, sugarcane grinders, shallow machines, power tillers, baby taxis and mini transport.

50. Grameen Bank has a simplified credit screening procedure for leases. The leasing program is open only to second-time borrowers from the bank's microfinance program, which provides the field officers at the branch, area and zone levels the benefit of the bank's prior experience with the borrower. Lease financing is priced on the basis of purchase price including transport and delivery costs plus 20% leasing fee (= interest rate). Lease rental payments are calculated on the pay-back period (up to three years) using average balance method. This simplifies administration of the leases and rental payments which are collected on a *weekly* basis.

V. Principal lessons learned

51. A number of important lessons can be derived from the survey of experience in leasing and MSB finance undertaken for this report. These principal lessons deal with the affinities that leasing and MSBs have for each other; financial and technical skills needed for leasing; the macroeconomic, legal and regulatory environments under which leasing contributes to broadening access to financial services; the default experience which appears to be in line with general loan recovery experience in microfinance; and the role of direct and indirect subsidies in programs designed to promote lease financing, MSBs and alternative energy systems.

Leasing and MSBs have affinities for each other.

52. As shown by the Bank's experience in the Pakistan Microenterprise Project leasing strengthens the financing and operating linkages between small-scale industry and microenterprises which relate to each other's business operations through sub-contracting arrangements. Sub-contracting arrangements promote the growth of MSBs and their expansion and integration into the organized formal business sector as small- and medium-sized enterprises. In the case of Pakistan, data from the Surveys of Small and Household-based Manufacturing Industries (SHMI) for 1976-77 and 1983-84 clearly show (a) an over 100% increase in value added contributions from the small and microenterprise sector between the two survey periods, (b) an 80% increase in the microenterprise sector's employment-absorption rate, particularly for women in household-based production units, and (c) extensive linkages between microenterprises vis-à-vis (i) larger enterprises in urban areas where subcontracting accounted for about a fifth of the subsector's total value added, and (ii) the agricultural sector in rural villages where subcontracting accounted for about a third of total value added of the sector.²²

53. This observation is also supported in the Bangladesh experience,²³ which highlights the diversity in financing arrangements across industries. It also provides a clear picture of the use of credit by informal operators to finance those who purchase their goods. The study concluded that entrepreneurs seek independence which can be compromised by borrowing and that owners want to manage their finances in the most advantageous way possible. Widespread extension of credit by small firms suggests that informal producers are a tremendous source of finance in Bangladesh. Because the clients of informal firms are predominantly other informal firms or poor individuals, MSBs appear to be the largest and most effective providers of credit to the rest of the poor. MSBs create employment and wealth for people of modest means.

54. By improving access of MSBs to well-structured longer-term financial services leasing can strengthen and expand the opportunities for sub-contracting arrangements and expansion of operating scale which is conducive to "graduation" into the small- and medium-scale end of the formal manufacturing, commercial or industrial sector. In so

²² Staff Appraisal Report, Pakistan Microenterprise Project

²³ Reazul Islam, J. D. Von Pische and J. M. de Waard (eds.), Small Firms Informally Financed - Studies from Bangladesh, World Bank Discussion Papers, Washington, DC: The World Bank, 1994

doing, leasing would create opportunities for the inclusion of cross-support services in Bank-financed projects, e.g., alternative energy, infrastructure and employment generation-oriented social funds.

Relevance of the Pakistan experience

55. The most important lessons provided by the experience with the Pakistan Microenterprise Project center upon (a) the eligibility criteria of participating financial institutions, (b) the importance of policies to attract collaboration from foreign corporations with expertise in leasing, (c) the indispensability of a clear regulatory and legal framework for leasing operations and (d) qualification criteria for enterprises and activities financed.

56. The Project required rigorous evaluation of (i) financial and managerial systems in operation in financial institutions interested in participating, and (ii) capacity of participating financial institutions to provide assistance in the form of leasing to MSBs. In the case of OLP the managerial infrastructure and financial technology was in place, and the company was already addressing the MSB sector as a target market niche.²⁴ Microenterprises were defined as firms with not more than 10 employees, which follows a conventional definition of microenterprise. However, no distinctions were made between microenterprises and small businesses on the basis of asset size. Thus, small businesses and microenterprises shared the same fixed assets maximum of not more than Rs 10 million (US\$ 450,000). This underscores the practical difficulty of drawing a fine line to distinguish microenterprises from small businesses on the basis of assets or capital. In reality, enterprises in the MSB sector share many affinities and similarities.

57. The Project identified and classified MSBs, based on the SHMI into three layers.²⁵ The characteristic needs of enterprises in each of the sectors for financing were classified and evaluated. Microenterprises in the lower stratum have modest needs for financing (Rs 15,000 or about US\$ 700 on average) for short-term loans to purchase raw materials and small tools. In Pakistan, as elsewhere, NGOs have been the principal source of institutional credit as well as support services. However, economically viable enterprises with the potential to realize high returns with small loans do not necessarily belong to the regular client base of the majority of NGOs in Pakistan. Most of the business activities of microenterprises in this lower stratum are perceived not so much as a means to achieve economic self-reliance, but as activities to generate temporary income support or relief for the target households.

58. MSBs in the middle stratum need external financing primarily for short-term working capital (Rs 40,000 or about US 1,800) to purchase raw materials or other inputs. Conventional banking practices in Pakistan are not sympathetic; MSBs are not likely to have the legally-required collateral [under current regulations a commercial bank must require collateral for any loan above Rs 25,000]. Financing needs for MSBs in the upper stratum are a combination of short-term working capital for inputs or inventory of

²⁴ Allied Irish Bank plc Assessment Report on Orient Leasing Pakistan Limited.

²⁵ Staff Appraisal Report, Pakistan Microenterprise Project, sections 3.05, 3.11- 3.21.

finished products (Rs 40,000 or US 1,800), but more importantly medium-term loans to invest in machinery and equipment (Rs 60,000 or US\$ 2,800). This is the MSB category that would have a natural fit for leasing.

Loss and default experience

59. In the Pakistan Project, OLP was allocating its available resources according to creditworthiness, returns available and quality of business. Lack of external funding was a serious constraint to strategic choice. Under the technical guidance of its experienced Japanese leasing company shareholder OLP has adopted a conservative provisioning policy for bad and doubtful leases. In its first three years of operation OLP has only experienced difficulty with two accounts, covering leases for an exposure amount of Rs 210,000 versus a total portfolio of Rs 39.0 million. OLP, which had been taking a 3% general provision against lease receivables created by each leasing transaction, has reduced its general provision level to 2%.²⁶

60. For Grameen Bank, the default experience shows about 7% of the total number of lease contracts written, but only 1.5% in terms of the value of lease contracts entered into. These statistics are well within the generally outstanding loan recovery and repayment rates that Grameen Bank has in its regular microfinance programs. While no Philippine leasing company specifically addresses the MSB sector, the indicative experience²⁷ of BPI Leasing is that over the last five to seven years the size distribution of their lease contracts, between small and medium- size companies vis-à-vis large enterprises, has shifted to 65% - 35% compared to 40% - 60%. Also, both on-time repayment rates and loan recovery rates are much better with smaller-sized lease contracts outside the major urban centers.

61. In the case of solar energy systems developed and promoted in a number of countries²⁸ affordable and accessible financing is a major consideration in the design of any photovoltaic program due to the high initial costs of solar home systems. The inability of borrowers to offer adequate security or collateral for the loan is a major constraint to offering term credit. Evidence suggests that consumer willingness and capacity to pay is influenced more by the size of the down payment than by the number or size of the monthly payments (because microentrepreneurs will tailor their financing installment payments to conform to their cash flow generation patterns), and flexible payment schemes may be needed for households with irregular income streams. In Sri Lanka's experience in financing solar home systems via bank credit or hire purchase arrangements, more than 80% of private sector sales have been cash transactions. This parallels, to a large extent, the Kenya experience. In Indonesia's BANPRES project, the collection rate has hovered around 60% despite strict penalties, including "disconnects" for nonpayment.

²⁶ Staff Appraisal Report, Pakistan Microenterprise Project.

²⁷ Interview with Mr. Cesar Tejada, President-BPI Leasing Corporation, January 21, 1997.

²⁸ Anil Cabraal et al., Best Practices for Photovoltaic Household Electrification Programs: Lessons from Experiences in Selected Countries, Technical Paper No. 324, The World Bank, Washington, DC, 1996.

62. To increase the number of households and MSBs able to pay for SHS, pricing strategies can incorporate flexible repayment and fee schedules that match the buyers' income streams and cash flow generation patterns, in addition to having some degree of flexibility and adjustments in the length of the repayment period. Obviously, extending repayment periods involves additional risks which should be taken into account. The nature and characteristics of the markets being addressed will influence the schedules and patterns for repayment. For instance, a quarterly repayment schedule may be more suitable for farm households and MSBs whose incomes are subject to seasonal factors. On the other hand, households and MSBs of salaried workers or employees may find monthly amortizations more convenient.

The role of direct and indirect subsidies

63. In Pakistan, the Microenterprise Project has made possible the access by OLP to local currency funds of long-term maturity and at predictable costs. Local currency funds of suitable maturity and stable costs had been a major constraint to the further penetration by OLP into its preferred small industry and microenterprise market niches. It should be noted, however, that the funds accessed are oriented to market-based rates and, more than anything else, serve to level the playing field between the principal GFI and private sector institutions like OLP.

64. In the recently approved SHS Project for Indonesia, the principal direct subsidy is the matching portion of the down payment funded through the IDF Trust Fund, and indirectly, the assistance to dealers and dealer network development plus the funding for dealers through participating commercial banks for the financing of systems through hire-purchase arrangements. For the photovoltaic household electrification programs in Indonesia, Sri Lanka, Philippines and Dominican Republic the private company, cooperative or NGO acting as intermediary often utilizes the seed money from government or donor grants to establish a revolving fund to purchase the first photovoltaic systems, under leasing or hire-purchase arrangements as a kind of "master-lessee" with the supplier. The intermediary retains ownership of the systems until they are fully paid for by customers over a period of time.

65. The relevant experience in Kenya and in Sri Lanka demonstrates that default rates increase significantly when the development and assistance programs are perceived as government-sponsored and financed. Alternative energy systems will only serve a small portion of rural households, no matter how effectively the commercial SHS market is promoted. For a significant majority, the costs of SHS are simply too high, even when long-term credit is made available and the only hope of obtaining a PV systems is that it will be provided with some element of subsidy.

66. However, the provision of subsidies for large-scale programs of PV application needs to be approached carefully, because of the danger of generating other problems and undesirable side effects. A primary drawback of subsidized programs is that they undermine the development of a commercial market, since households and MSBs will not purchase SHS equipment if they can acquire it more cheaply through a subsidized program. The second major problem is a perverse impact on equity and development

priorities because of the practical difficulties associated with excluding the better-off households and business establishments whose expenditures on commercial energy are already high. As in other areas where they are consciously incorporated in programs, subsidies need to be limited, transparent and well-targeted.

Macroeconomic and regulatory environments

67. The countries that have successfully developed leasing as another avenue providing access to financial services for MSBs have been characterized by relatively more stable macroeconomic conditions (particularly with regard to income growth, interest and foreign exchange rates, and monetary aggregates) even as the financial sector was opened up to deregulation. In a number of the countries (e.g., Pakistan, Bangladesh, Indonesia and the Philippines) the regulatory framework, prudential supervision and tax structures governing leasing transactions were formalized and better defined. The Bank has also assisted in drafting relevant laws and tax regulations for the leasing industry in Jordan, The West Bank and Gaza, and a number of Eastern European countries.

68. Without these legal definitions and clarifications the economic advantages that leasing may present to borrowers, vis-à-vis conventional bank financing, would be hard to realize. A sound framework of fiscal equity and enabling regulatory environment is indispensable for the continued growth of the leasing industry and the entry of leasing companies into microfinance. The various areas of a regulatory environment conducive to growth of the leasing industry are summarized in Box 4 below. Very often, central banks treat leasing companies similarly to commercial banks when setting prudential liquidity management requirements—even though leasing companies are not deposit-taking institutions.²⁹ In addition, for a number of countries which had adopted “Islamization” of banking practices and procedures (such as Pakistan and Bangladesh), it should be noted that leasing is fully compatible with Islamic banking principles.

²⁹ See “Regulatory barriers preventing the development of leasing” in Leasing in Emerging Markets, The World Bank and International Finance Corporation, Washington, DC, 1996.

Box 4. Characteristics of a Regulatory Environment Friendly to Leasing	
Banking regulations	Recommended actions to promote leasing industry
<i>Licensing</i>	<ul style="list-style-type: none"> • Recognize existence of leasing. • Restrict leasing to licensed institutions and require banks to set up separate subsidiaries to do leasing.
<i>Prudential requirements</i>	<ul style="list-style-type: none"> • Permit leasing companies to mobilize only term deposits. • Minimum capital requirements may be lower than for many other financial institutions. • Other prudential requirements may be less strict than those for traditional deposit-taking institutions.
Legal framework	
<i>Lessor's ownership</i>	<ul style="list-style-type: none"> • Clearly stated with simple, effective and timely procedures for repossession if lessee defaults.
<i>Lessee's rights</i>	<ul style="list-style-type: none"> • Clearly stated: uninterrupted use of leased asset for the lease period if lease rental payments are current. • Registry system and procedures for debt obligations and security rights, especially movable property.
<i>Central registry</i>	
Tax treatment	
<i>Lessor</i>	<ul style="list-style-type: none"> • Allowed to depreciate asset; lease payments taxed as income; asset depreciated over a time period shorter than or equal to lease contract.
<i>Lessee</i>	<ul style="list-style-type: none"> • Lease payments treated as deductible expense for tax purposes.
<i>Sales tax</i>	<ul style="list-style-type: none"> • Post-contract sale of leased asset exempt from sales tax.
<i>Capital allowances</i>	<ul style="list-style-type: none"> • Given to lessor or lessee; equal treatment compared to other financing.
Foreign investment regime	
<i>Convertibility of leasing co.'s paid-in capital</i>	<ul style="list-style-type: none"> • Free convertibility to foreign currency-denominated deposit account.
<i>Corporate tax treatment</i>	<ul style="list-style-type: none"> • Comparable to other financial institutions.
<i>Dividends & royalties</i>	<ul style="list-style-type: none"> • Free transferability and remittance; possible exemption from withholding tax.
<i>Capital equipment imports [for on-leasing]</i>	<ul style="list-style-type: none"> • Should receive same customs and tax treatment as if imports were undertaken directly by end-users.

Source: International Finance Corporation, *Leasing in Emerging Markets*, The World Bank and International Finance Corporation, Washington, DC, 1996.

VI. Some measures for consideration by The Bank

69. There are opportunities for more active and explicit use of leasing operations as an effective financial intermediation methodology in Bank projects that are designed to promote MSB development. There have been an increasing number of Bank projects in MSB development, in which the target beneficiaries are urban and rural households in the various poverty categories, as in the case of Pakistan. There are also projects, similar to the Indonesia SHS Project, in which the target beneficiaries are rural households and small commercial establishments being empowered to acquire assets that can increase productivity and output. By coordinating more closely with the Bank in MSB and SME projects the IFC could serve to enhance the potential for successful projects by redesigning some of its programs for onlending funds, investment in leasing companies and venture capital toward companies that specifically target MSBs.

70. Alternative energy systems programs have been implemented with various institutional arrangements, ranging from electric utilities or rural electric cooperatives to private sector leasing and direct sale programs. The experiences of Indonesia, Sri Lanka, Philippines, the Dominican Republic and Kenya in implementing photovoltaic programs demonstrate that effective and sustainable programs have made use of existing institutions rather than completely new organizational structures. This approach avoids problems of creating and staffing new institutions although capabilities of existing institutions may need to be strengthened. Also, existing institutions may require specific incentives to accept additional responsibilities. In the specific cases of Pakistan and Indonesia, the Bank has creatively applied its facilities to support institution building.

71. With respect to creating optimal structures for transparent and cost-effective financing, the use of the GEF facility in augmenting end-users' required down payment for lease financing or hire-purchase arrangements for the Indonesian SHS Project demonstrates that a similar approach could be used in expanding the market for similar photovoltaic systems and other productive equipment that opens up access to new technology for households and MSBs in other countries.

72. It is not likely, and neither is it recommended that microfinance NGOs and specialized financial institutions should operate like leasing companies. Instead, the thrust would be for these microfinance institutions to act and function as pass through and servicing intermediaries for lease financing programs that the formally-constituted leasing companies could deal with in addressing the MSB market segment. The experience of the energy service companies (ESCOs) shows that the pattern and structure of intermediation is viable and effective.

73. The Bank's experience in Pakistan and Indonesia, and those of other multilateral agencies in other country programs particularly in alternative energy systems indicates the significant potential of leasing as a financial product to assist in the growth and expansion of MSBs. Microfinance development programs often incorporate components to improve business management and production capacity of MSBs, the outreach and sustainability of microfinance institutions and the overall quantum of financial resources available for lending. The effectiveness of microfinance development programs can be

substantially enhanced by including, in their design, measures and structures that use leasing as an intermediation mechanism for microfinance of longer maturities and acquisition of capital equipment. This approach would be preferable to one that is neutral and non-specific as to the varieties of loan maturities and types of financing to be supported by microfinance programs. In this manner, the emphasis is not simply on general access to financial services but better defined access to financial services with maturities and terms appropriate to microenterprise activities.

74. Because of its programs in privatization, deregulation and financial restructuring the Bank would be well-positioned to ensure that a country's legal and regulatory framework is appropriately redesigned to establish a business, fiscal and market environment in which leasing—along with other forms of financial intermediation—can develop and function effectively. In this context, a checklist of considerations pertinent to the use of leasing in MSB development projects is summarized below:

- There must be a clear definition of firms and economic activities that belong to the MSB sector, to accurately identify the market segments that are the target of a development and promotion program. Moreover, it is difficult to draw a categorical dividing line between “conventional” microenterprises and small-scale businesses, especially the microenterprises of poor households in the upper layers of the poverty pyramid.
- A MSB finance development program that provides for the use of specialized institutional channels and instruments is more effective than one that is neutral and non-specific as regards maturity and repayment cycles, as well as assets and operations to be financed.
- Leasing can be an effective tool that opens up additional access to the right kind of financial services for MSBs if there exists an enabling macroeconomic, market, financial and fiscal environment.
- Leasing represents a most effective financing technique for reaching those enterprises whose financial needs cannot be satisfied by traditional minimalist microfinance approaches. It has the potential to generate significant developmental impact by transforming marginal enterprises into sustainable businesses.
- Studies on linkages between MSBs vis-à-vis medium-scale and larger firms will be useful and may be necessary in (a) assessing the impact of applications of new technology and use of equipment in employment and production output in small businesses and microenterprises, and (b) quantifying this linkage effect.
- A clearly established legal, regulatory and tax framework for leasing transactions is indispensable for this form of financing to grow and take its appropriate place in the financial system.

- Not all leasing companies can be expected to find MSBs as attractive market niches to cover. Leasing companies that have already begun address the market segments for small businesses may be more prepared to expand into the microenterprise sector because of the experience and knowledge capital they have accumulated and operating systems they have developed.
- Leasing programs restricted only to microenterprises may not be conducive to risk diversification for leasing companies. The approach used for alternative energy projects in some country settings is to include specialized microfinance NGOs as a further intermediary between the leasing company and the ultimate end-users. The microfinance NGO operates as a master lessor, with the ultimate end-users as sub-lessors. This takes advantage of the specialized area and operational knowledge and experience of community-based organizations.
- A clear policy to attract the participation and collaboration of foreign companies with expertise in leasing operations and systems is an advantage, as demonstrated in the Pakistan and Indonesian experience.

Appendix Tables

Appendix Table 1. Present Value Analysis: Lease Finance vs. Financed Purchase

Period	Lease Finance	Cash Flow £	Discount Factor (18%)	Present Value £
0	10% Security deposit	20,000	1.0000	20,000
0	1% Front-end fee	2,000	1.0000	2,000
Year 1	Tax shield on front-end fee	(700)	0.8475	(593)
Month 0 - 47	Monthly lease rentals	5,364.62		
Year 1	Total lease rentals	64,375	0.8364	53,844
	Tax shield on lease rentals	(22,531)	0.8475	(19,094)
Year 2	Total lease rentals	64,375	0.6995	45,031
	Tax shield on lease rentals	(22,531)	0.7182	(16,182)
Year 3	Total lease rentals	64,375	0.5851	37,666
	Tax shield on lease rentals	(22,531)	0.6086	(13,713)
Year 4	Total lease rentals	59,011	0.4967	29,310
	Tax shield on lease rentals	(20,654)	0.5158	(10,653)
Month 48	Refund of security deposit	(20,000)	0.4894	(9,787)
Month 48	Payment of residual value	20,000	0.4894	9,787
	Total, with tax shields			127,616
	Total, without tax shields			187,850

Period	Financed Purchase	Cash Flow £	Discount Factor (18%)	Present Value £
0	Acquisition cost	200,000	1.0000	200,000
0	Equity down-payment	80,000	1.0000	80,000
	Monthly amortizations	3,047.21		
	Total amortization payments	182,832		111,703
Year 1	Monthly amortization	36,566	0.836472	30,584
Year 2	Monthly amortization	36,566	0.6995	25,578
Year 3	Monthly amortization	36,566	0.5851	21,395
Year 4	Monthly amortization	36,566	0.4967	18,163
Year 5	Monthly amortization	36,566	0.4371	15,983
	Annual depreciation (5 years)	40,000		
Year 1	Tax shield (Depreciation)	(14,000)	0.8475	(11,865)
Year 2	Tax shield (Depreciation)	(14,000)	0.7182	(10,054)
Year 3	Tax shield (Depreciation)	(14,000)	0.6086	(8,520)
Year 4	Tax shield (Depreciation)	(14,000)	0.5158	(7,221)
Years 1-4	Tax shield (Depreciation)	(56,000)		(37,660)
	Total, with tax shields			154,043
	Total, without tax shields			191,703
With tax shields: Leasing advantage: in £				27,020
as %				17.5 %
No tax shields: Leasing advantage: in £				3,952
as %				2.1 %

Assumptions:

1. Equipment cost = £ 200,000	7. Lease discount rate = 18% p.a.
2. Equipment life = 5 years	8. Lease Security deposit = 10%
3. Depreciation rate = 20% per year	9. Lease Front-end fee = 1%
4. Tax rate = 35%	10. Lease Residual value payment = 10 %
5. Bank loan rate = 18% p.a.	11. Lease term = 4 years
6. Bank loan term = 1 year, with 3 roll-overs	12. Lease payment mode = Level payments

Appendix Table 2. Size Classification of Leases Financed by OLP under the Project
Percentage Distribution, by Number and Amount

Size of Leases in Rs	Microenterprise		Small Scale Business		Total	
	Number	Amount	Number	Amount	Number	Amount
Up to 25,000	3.72 %	0.34 %	0.75 %	~	1.94 %	0.12 %
25,001-50,000	14.50 %	3.40 %	5.75 %	0.70 %	9.27 %	1.38 %
50,001-75,000	13.01 %	4.95 %	6.00 %	1.54 %	8.82 %	2.40 %
75,001-100,000	10.41 %	5.59 %	7.00 %	1.86 %	8.37 %	2.80 %
100,001-150,000	16.00 %	12.76 %	14.25 %	5.78 %	14.95 %	7.54 %
150,001-200,000	14.50 %	15.33 %	12.25 %	6.37 %	13.15 %	8.63 %
200,001-250,000	11.15 %	14.95 %	5.50 %	4.14 %	7.77 %	6.86 %
Sub- Total	83.29 %	57.32 %	51.50 %	20.39 %	64.27 %	29.73 %
250,001-300,000	3.72 %	6.28 %	6.25 %	5.24 %	5.23 %	5.51 %
300,001-350,000	4.09 %	7.82 %	5.75 %	5.69 %	5.08 %	6.23 %
350,001-400,000	2.97 %	6.72 %	8.25 %	9.46 %	6.13 %	8.77 %
400,001-450,000	1.50 %	3.85 %	5.25 %	6.41 %	3.74 %	5.77 %
450,001-500,000	0.75 %	2.20 %	4.75 %	6.85 %	3.14 %	5.68 %
Sub- Total	13.03 %	26.87 %	30.25 %	33.65 %	23.32 %	31.96 %
500,001-700,000	2.97 %	10.48 %	8.25 %	14.98 %	6.13 %	13.85 %
700,001-900,000	0	0	3.25 %	8.00 %	1.94 %	5.98 %
900,001-1,100,000	0	0	4.00 %	11.88 %	2.39 %	8.88 %
1,100,001-1,300,000	0.75 %	5.33 %	1.75 %	6.26 %	1.35 %	6.03 %
1,300,001-1,800,000	0	0	1.00 %	4.78 %	0.60 %	3.58 %
Total, %	100.00	100.00	100.00	100.00	100.00	100.00
Total, # & Rs.	269	45,000,972	400	133,508,787	669	178,509,759
Ave. Lease Size, Rs.		167,290		333,777		266,830

Source of data: Aide Memoire, Back-To-Office Report, Bank Review Mission, September 1994.

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