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Report prepared by
Marcel Fafchamps, Tyler Biggs, Jonathan Conning and Pradeep Srivastava

Introduction 4

Part I. Theory and Concepts 6
Chapter 1. Enterprise Finance, Investment, and Economic Efficiency 6
Section 1. Intermediation and Investment in Frictionless Markets 7
Financial Intermediation 7
Irrelevance of Firms' Financial Structure 7
Real/Financial Interactions 8
Insurance Against Economic Shocks 8
Section 2. Financial Markets with Barriers to Transactions 9
Barriers to Credit 9
The Role of Financial Intermediation 10
Section 3. Financial Structure as a Response to Market Imperfections 10
Indirect and Direct Responses 10
Interest Rate Premia 12
Section 4. Trade Credit and Financial Intermediation 13
Bank Credit vs. Other Forms of Credit 13
Motives for Trade Credit 14
Trade Credit, Information, and Interlinking 15
Section 5. Market Imperfections, Financial Structure and Enterprise Investment Behavior 16
Financial Structure and Investment 16
The Firm's Net Worth 17
Firm Size and Technology Choice 18
Allocative Efficiency, Sectoral Investment and Structural Adjustment . . 19
Section 6. Financial Structure, Industrial Structure, and Economic Performance 19
Chapter 2. Institutions for the Enforcement of Contracts 21
Section 1. Enforcement, Information, and Access to Credit 21
Enforcement Mechanisms 21
Moral Hazard, Adverse Selection, and Other Information Issues 23
Risk Sharing 24
Section 2. Collateral and the Role of the Legal System 25
Contract Enforcement Without State 25
Laws and Tribunals 28
Credit and Collateral 28

Part II. Empirical Results 30
Chapter 3. Survey Data and Firm Characteristics 30
Section 1. The Panel Survey 30
Sample Frame 30
Panel Firm Characteristics 31

Section 2. The Case Study Survey 31
Chapter 4. The Use of Credit and Insurance 33
Section 1. Banks and Formal Sources of Credit 33
Deposits in Financial Institutions 34
Loans from Financial Institutions 34
Bank overdrafts 37
Section 2. Credit to and from Trading Partners 40
The Use of Trade Credit 40
Contractual Relations With Suppliers 42
Contractual Relations With Clients 45
Section 3. Informal Finance 48
Deposits and Contributions in Informal Groups 48
Informal Lending and Borrowing 49
Section 4. Formal Business Insurance 50
Section 5. Access to Credit and the Need for Flexibility 51
Sources of Start-Up Capital 51
Purchases of Land, Buildings and Equipment 52
Liquidity Constraints 55
Summary: Credit Flows, Ethnicity, and Firm Size 56
Credit Flows 56
Firm Size, Ethnicity and Finance 57
Chapter 5. Credit Relationships and the Enforcement of Contracts 60
Section 1. Socialization With Potential Sources of Credit 60
Banks 60
Informal Sources of Credit 61
Suppliers 61
Section 2. The Establishment of Trade Credit Relationships 62
With Suppliers 62
With Customers 63
Section 3. Repayment Problems 65
With Banks 65
With Informal Lenders and Personal Loans to Friends 66
With Trade Credit From Suppliers 66
With Trade Credit to Clients 67
Section 4. The Enforcement of Commercial Contracts 68
Orders and Deliveries from Suppliers 68
Payment from Customers 70
Avoidance of Problems With Suppliers and Clients 72
The Use of Legal Institutions 73
Summary: Trust, Reputation, Legal Institutions and Access to Credit 74
Bank Credit 74
Informal Credit and Finance Companies 76
Trade Credit 77

Why Institutions Do Not Emerge 84
Coordination Failure, Innovation, and Coercion: Examples 85
Section 3. What Policies for Kenya 86
Chapter 7. Credit Relationships and the Enforcement of Contracts 92
Section 1. Socialization With Potential Sources of Credit 92
Banks 92
Informal Sources of Credit 92
Suppliers 93
Section 2. The Establishment of Trade Credit Relationships 93
With Suppliers 93
With Customers 94
Section 3. Repayment Problems 96
With Banks 96
With Informal Lenders and Personal Loans to Friends 96
With Trade Credit From Suppliers 96
With Trade Credit to Clients 98
Section 4. The Enforcement of Commercial Contracts 98
Orders and Deliveries from Suppliers 98
Payment from Customers 99
Avoidance of Problems With Suppliers and Clients 100
The Use of Legal Institutions 101
Conclusion 101
Bank Credit 102
Informal Credit and Finance Companies 104
Trade Credit 105

Appendix: The Incidence of Macro Policies on Enterprise Finance 113
Section 1. Recent Macro Economic Events 113
Section 2. The Effect of the Credit Squeeze 114
Section 3. The Effect of the Recession 115
Section 4. The Effect of Foreign Exchange Policies and Other Policies 116

Bibliography 118

Introduction

The lackluster response of private industrial investment to structural reform programs in Kenya, and more generally in Sub-Saharan Africa, is a subject of concern to policymakers and aid agencies. Thus far, the search for underlying causes has focused mainly on determinants of investment demand. For example, the Bank's latest Private Sector Assessment for Kenya directs attention to mismanaged reform efforts and onerous regulatory regimes, which purportedly continue to constrain real sector investment opportunities (Kenya PSA, 1992). Other such studies point to the lack of government credibility in sustaining reform programs, and the resulting increased "waiting option" of investors. Still others cite Africa's low technological capabilities (Pack, 1993; Lall, Navaretti, Teitel and Wignaraja, 1993; Teitel, 1993, et al) as a central reason for the slow response of investors to shifts in incentive structures. Much less attention has been paid to factors affecting the behavior of institutions supplying loanable funds. Once the constraints to investment demand have been lifted, the implicit assumption seems to be that financing follows automatically. The behavior of financial intermediaries in the wake of reforms, as well as the broader issue of the nature of real/financial interactions, are largely omitted from the analysis.[1]

The financial analysis which does take place is generally aimed at spelling out particular aspects of financial repression, such as the problems caused by interest rate controls and government interference in the supply of domestic credit. Important issues without question, but the analysis concludes again with the implicit or explicit assumption that once government interference in the financial system is stopped, unfettered markets will automatically mobilize savings and allocate funds efficiently to investors. The "perfect markets" paradigm serve as the basis for most policy recommendations. This is so, even though most analysts and policymakers alike agree that African markets, left untouched by government interference, are still riddled with barriers to financial transactions which hinder their operating efficiency.

It is these market imperfections and their influence on the structure and performance of African financial markets that this study addresses. When there are "frictions" between lenders and borrowers in the form of limited or private information, limited communication, and weak enforcement mechanisms, financial markets do not operate according to the perfect markets paradigm. Barriers to transactions between buyers and sellers of financial instruments raise the cost of financial intermediation, cause certain financial markets, equity markets in particular, to break down or be severely limited, and lead to rationing in loan markets. As a consequence, they have important implications for the efficient allocation of loanable funds and, in turn, for enterprise investment behavior and real economic activity.

In this report, we examine how information and enforcement problems affect access to credit by Kenyan manufacturing firms. We also investigate how imperfections in financial markets influence manufacturing investment behavior. To do so, we rely on the results of two World Bank surveys on enterprise finance in Kenyan manufacturing. Our analysis shows that Kenyan firms have a differentiated access to credit, many of the smaller firms being rationed out of bank credit, but also that bank loans are but one possible source of enterprise funds. Trade credit constitutes a major

[1]An exception is the study by Caprio (1992) where a general theoretical discussion of financial intermediaries in the wake of policy reforms can be found.

source of short-term credit for all firms. Bank credit itself takes mostly the form of overdraft facilities, much less that of straight loans, further underlining the importance of working capital considerations. Hire-purchase is a popular way of financing equipment purchases, especially vehicles. Rotating credit arrangements play virtually no role in enterprise finance in Kenya. The delayed repayment of debt is the major avenue through which firms smooth their cash flow when faced with liquidity problems. Finance companies play a critical role in providing instant credit to known customers as insurance against liquidity shocks. The exchange of information on business performance and credit repayment history helps members of small business communities, particularly the Kenyan-Asians, establish a valuable reputation within their group. As a result, their access to credit is much better than members of other ethnic groups.

From these results, we draw recommendations for policy action. The sharing of credit history information should be encouraged and mechanisms set up to establish a system of credit reference in Kenya, particularly for small and medium firms. A system of small claims courts could be instituted and geared toward solving small business disputes. The hire-purchase of equipment and the use of machinery as collateral through chattel mortgages could be encouraged through the registration of hire-purchase and chattel mortgage contracts. Programs of directed credit for small and micro firms should rely on a combination of traditional and innovative credit enforcement mechanisms.

Enterprise finance in Kenya is not in a desperate situation. Kenya is home to fairly sophisticated businessmen and women and to vibrant business communities. They are familiar with a wide variety of credit instruments, and they are willing to use them. What they need now are funds and government support to take advantage of the new opportunities for manufacturing production, especially for exports, that have resulted from structural adjustment efforts and the recent devaluation of the Kenyan Shilling (RPED, 1994).

Part I. Theory and Concepts

In the first part of this report we briefly lay down the theoretical foundations of our empirical work. Chapter 1 introduces the relation between firms' need for funds and economic efficiency. The perverse effects of barriers to credit on industrial investment is discussed. Some of the insights gleaned are then applied to financial intermediation and financial structure. Trade credit is the object of special scrutiny as it turns out to play a critical role in enterprise finance in Kenya, as it does elsewhere. Chapter 2 examines the causes of barriers to credit in detail. A special emphasis is placed on information and contract enforcement issues. The relationship between legal institutions and informal enforcement mechanisms is also examined.

Chapter 1. Enterprise Finance, Investment, and Economic Efficiency

In this study, we are primarily concerned with the effect of financial market imperfections on enterprise investment behavior. The perfect markets paradigm founded on the Modigliani and Miller Theorem (1958) views both the financial structure of the firm, i.e., where the firm gets finance, and its financial position or *net worth* as irrelevant for its operating decisions. In this idealized world where all kinds of financing is available to all firms at the prevailing cost of capital, the type of financing a company uses for an investment or how deep its pockets are do not matter. When access to financing is no longer unlimited at prevailing interest rates and certain types of financing are missing altogether, however, the firm's financial structure and net worth become important determinants of investment behavior as we will show in this study. Broadly speaking, the presence of imperfections in financial market significantly change the nature of real financial interactions that take place in the economy.

When markets are frictionless, there is only one operative channel through which real/financial interactions occur. Changes in financial variables affect real economic activities like firm investment spending solely via changes in the cost of capital. Real financial markets, however, are characterized by the existence of market frictions. These frictions take various forms: limited or private information (information about a company or individual is known only to that individual and is costly for other agents to gather), limited communication (information about a company or individual circulates only within a certain social network) and weak enforcement mechanisms (contracts cannot be perfectly enforced within the existing legal system or social structure). The existence of frictions make loans from financial intermediaries "special." Special in the sense that the expertise acquired by intermediaries, such as banks and informal lenders, in the process of gathering information via evaluating and screening applicants and in monitoring loan performance, enables them to extend credit to firms who find it difficult or impossible to obtain credit by issuing stocks or bonds. As a consequence, when banks reduce the share of loans in their portfolios because they fear economic conditions, or when changes in money supply reduce bank reserves and therefore loans, spending by enterprises who depend on bank credit must fall, and so must aggregate GDP. Thus, in a financial environment with substantial barriers to transactions, credit intermediaries play a role in determining real economic activity.

Financial intermediaries reduce the costs and allocative inefficiencies resulting from the presence of information, communication, and enforcement difficulties. But in doing so they render

the flow of finance less fluid than generally assumed. For example, in developed countries, breakdowns in the relationship between intermediaries and borrowers have been cited as important causes of economic crises (Bernanke, 1983; Kennedy, 1989). In developing countries barriers to trade are much more in evidence and such breakdowns are more common, particularly following large economic shocks like structural adjustment and financial reform programs. Indeed, large economic shocks modify relative prices, restructure incentives, and change business conditions. The ensuing reallocation of resources calls for new companies and investment projects to be funded and for old ones to be shut down. As a result, part of the information capital of financial intermediaries is destroyed as the economic profitability of old clients is eroded. The economic transformation calls for intermediaries to gather of data about the creditworthiness of new potential borrowers and to develop new relationships with them. Rebuilding lenders' knowledge base is costly and takes time. In consequence, the response of intermediaries to structural adjustment in terms of supply of investable funds is often more sluggish than assumed in the wake of policy reforms. In their effort to economize on information costs, intermediaries may even hinder the reallocation of resources by continuing to fund firms that have outlived their usefulness.

Section 1. Intermediation and Investment in Frictionless Markets

To better understand how market imperfections influence the operations of African financial markets and enterprise investment, we first examine the case of perfect financial markets. We consider an ideal, theoretical environment, in which perfect competition prevails, information is freely available, and individuals and firms can costlessly enforce all contractual commitments. For our purposes, there are four important implications of this set of conditions: (a) financial intermediation is unnecessary; (b) the financial structure of firms is irrelevant; (c) real/financial interactions stem only from activity in the market for the medium of exchange; and (d) individuals and firms share completely and optimally all economic shocks.

Financial Intermediation

Since by assumption it is costless to obtain information about borrower creditworthiness and to enforce contracts, arrangements can always be made between savers and investors to cover all possible contingencies. As a result, no incentive problems arise between the parties. Financial intermediaries are redundant: savers and investors can enter directly into financial relationships without the assistance of intermediaries to screen and monitor borrowers and enforce loan contracts. Credit flows directly between firms and individuals. When, for instance, a Kenyan entrepreneur borrows from a friend to cope with a temporary liquidity problem, exchange takes place directly between supplier and user of funds. This is because the situation that prevails between friends comes as close as is humanly possible to perfect enforcement and information and no transaction costs. In a perfect market world, everyone is able to lend and borrow freely at risk-adjusted rates of interest. Market forces ensure a first-best allocation of saving across investment projects to equalize risk-adjusted marginal returns. The allocative process is costless.

Irrelevance of Firms' Financial Structure

Modigliani and Miller (1958) showed in their influential theorem about the links between a firm's investment decisions and its financial position that if frictionless complete markets prevail, real economic decisions are independent of financial structure: firms' decisions concerning investment expenditures are independent of their balance sheet and of how the investments are to be financed. Regardless of the firm's financial position, it is always optimal for the entrepreneur to invest so as to maximize the value of the enterprise, that is, to invest until the expected revenue from the investment equals the risk-adjusted opportunity cost of borrowed funds. Also lenders are indifferent as to how a firm finances its investments, as long as they receive the expected risk-adjusted opportunity cost of capital (Hall and Jorgenson (1967), Gertler, Ibid., p. 565).

Real/Financial Interactions

Real/financial interaction in the Modigliani-Miller world stems solely from activity in the market for the medium of exchange and not from the performance of markets for borrowing and lending. Put simply, given that intermediation is unnecessary when markets are perfect, there is no need to worry about the credit supply process; importance is attached only to the money supply process and its channel of transmission (or propagation) to *the* risk adjusted interested rate. Most important, economic growth in this idealized world depends only on real factors, such as technical change and increasing supplies of factors of production. This notion has provided one of the foundations for the recently developed real business cycle theories: the view that fluctuations in output and employment are the result solely of a variety of real shocks hitting the economy. Any link between money and output is explained as a result of the money stock accommodating movements in output, not causing movements in output.

Insurance Against Economic Shocks

In efficiently engineering the flow of resources between borrowers and lenders, the financial system also meets the additional need of providing insurance to risk averse savers and investors. Individuals and firms in a setting of perfect and complete markets have a variety of mechanisms, like diversification, futures markets, borrowing and insurance contracts to completely shed exposure to idiosyncratic risk and to share optimally the impact of systemic risks.[2] Borrowers thus need only to pay lenders a premium for systemic risks associated with their particular investments, regardless of the amount of idiosyncratic risk. The financial system in this ideal economy facilitates individuals' and firms' ability to efficiently "smooth" cash flow due to idiosyncratic shocks, and in so doing shelters investors from a considerable amount of risk in the economy. In equilibrium, only optimally-shared systemic risks are left to influence saving and investment. The reduction of risk increases the attractiveness of saving and investing, and consequently is one of the financial system's contributions to growth.

Because borrowers and lenders have the necessary information to arrange contracts to cover all contingencies, they can fully insure against unanticipated short-term needs for liquidity. Thick markets for financial claims and perfect information also mean that "distress" sales of assets always yield their value. For these reasons, liquidity problems never arise in the perfect markets case.

[2]Idiosyncratic risks are firm-specific (e.g., death of the owner, fire, worker strike); systemic risks affect several firms or the economy as a whole (e.g., exchange rate movements, structural adjustment reforms).

Therefore, there is no need for individuals and firms to hold precautionary balances of safe assets. As a result, the overall amount of resources available for investment is larger.

Section 2. Financial Markets with Barriers to Transactions

Barriers to Credit

It goes without saying that African financial markets do not fit the textbook, frictionless markets model just presented. Empirical observation, as we will demonstrate in this report on Kenya, attests to the fact that problems of limited information, limited communication, weak contract enforcement mechanisms, and high transaction costs are endemic to the financial markets of these countries. Each of these deficiencies creates "friction" in the relationship between borrowers and lenders, thereby influencing the market's ability to supply credit, diversify risks and provide liquidity and insurance.

Even in more developed economies, where such deficiencies are less severe and obstructive, financial markets have been shown to perform less well than predicted by the perfect markets paradigm. Studies consistently demonstrate that frictions are present in loan markets which raise the cost of borrowing, particularly for new and smaller enterprises. Hence, counter to the predictions of the frictionless markets model, all enterprises do not face the same access to and cost of capital. In violation of the Modigliani-Miller proposition which predicts unlimited access for all firms to all financial instruments at the prevailing cost of capital, studies demonstrate determinant financing patterns. Small and medium enterprises -- the so-called "information intensive" borrowers -- are forced to rely on internal financial resources, banks and informal lenders, while mature, large firms raise capital via equity markets, commercial paper and debt. Additionally, studies indicate that both individuals and firms hold sizable quantities of liquid assets as well as inventories, suggesting the need for self-insurance, even in advanced countries.

Specific patterns of financing also appear in cross country data at different levels of per capita income and across time within countries. This suggests a relationship between the level of development of real economic activity and the level of development of the financial sector. In low income countries, firms rely heavily on internal resources and informal credit, and hoard cash and inventories of goods to self-insure. Commercial banks dominate financial markets. Money, stock and bond markets are underdeveloped. This suggests that in the presence of information and enforcement problems, certain financial markets, such as those for equities, break down or are severely limited. At higher levels real economic activity, markets for direct enterprise financing emerge in the form of stock and bond markets. Non-bank financial institutions, like insurance and pension funds, grow up to provide insurance. All these increased financial services raise the allocative efficiency of financial resources and, in the case of insurance, make more resources available for investment as the need for self-insurance declines.

How do market imperfections affect transactions in financial markets and influence enterprise investment and growth? First, when information is difficult and costly to obtain, lenders cannot freely observe all the relevant aspects of a firm's investment project. Hence, they are unable to evaluate creditworthiness properly and to write complete loan contracts specifying all possibly contingencies. In most instances, lenders have less knowledge than managers about the quality of the firm's plant and equipment and the dedication and competence of its management and workers. Lenders also find it

difficult to monitor how hard the entrepreneur or manager works on the investment project. And they find it costly to verify the firm's output. Borrowers, of course, can potentially gain by exploiting their asymmetric information advantage.

Enforcing particular elements of a financial contract is also costly, perhaps even prohibitively so. For example, it is costly for courts to observe and verify all relevant economic variables, making it difficult to enforce contracts based on these contingencies. The costs of carrying out sanctions, such collecting collateral and fines, selling off repossessed collateralized equipment, and imprisoning offenders may also be high where markets are thin, law enforcement agencies are inadequate, and political authorities neglect the protection of property rights. High enforcement costs permit individuals and firms to gain by defaulting on debts.

The Role of Financial Intermediation

In a world characterized by information and enforcement problems, economic agents naturally arise that specialize in the information intensive activities associated with the allocation of credit and insurance. As borrowers differ in the likelihood that they will default, the extent of risk must be determined for each borrower individually. Financial intermediaries assume the responsability of *screening* borrowers across the market and over time. Second, it must be ensured that borrowers take actions that make loan repayment most likely. To that effect, intermediaries structure *incentives* by writing loan contracts and monitoring borrowers to increase the probability of repayment. Third, it is difficult to impose repayment on a recalcitrant debtor, even after screening and monitoring. Financial intermediaries get involved in loan *enforcement* activities, like collateral appraisal and credit ceilings, that increase the likelihood of loan repayment and reduce the scope for opportunistic default. In all these activities, financial intermediaries take advantage of gains from specialization in the form of learning by doing and returns to scale to information capital.

In the presence of information and enforcement problems, financial intermediaries thus become an important determinant of real economic activity. They raise the efficiency of loan transactions in the presence of barriers to credit and, so doing, improve the level and efficiency of investments (Williamson, 1986; Boyd and Prescott, 1986; Moore, 1987, Morgan, 1987). By diversifying their portfolios, they smooth out some of the idiosyncratic risk in financial markets. Because they benefit from economies of scale, they are able to reduce transaction costs and reduce the premium on external funds which arises due to frictions in the loan market.

Section 3. Financial Structure as a Response to Market Imperfections

Indirect and Direct Responses

It is the market's responses to the three problems of screening, incentives and enforcement, singly or in combination, that explain many of the observed features or "structure" of credit markets. Conceptually, two types of mechanisms are used by intermediaries to resolve problems of screening, incentives, and enforcement: *indirect and direct* (Hoff and Stiglitz, 1990). Indirect mechanisms rely on the design of loan contracts such that, when a borrower responds to these contracts in his own best interests, the intermediary obtains information about the riskiness of the borrower, and the borrower is induced to take actions to reduce the likelihood of default. Such contracts may be found in the credit market itself, with conditions like interest rates, loan size and maturity, or they may be

linked to contracts in related markets (e.g., product market, sub-contracting). Contracts nevertheless are limited in their scope. The set of contingencies and covenants that can realistically be included in a contract is limited. As a result, the flexibility that intermediaries have in regulating the behavior of borrowers is limited as well. Intermediaries must therefore rely on direct mechanisms as well, thereby expending resources in actively screening applicants, monitoring borrowers, and enforcing loans.

Market responses to deficiencies in information, communication and enforcement have several implications for the *structure* of financial systems:

(a) Markets for certain financial instruments like equities, futures, and bonds, may fail to emerge or be accessible only to certain firms and individuals because of information asymmetries and enforcement problems.

(b) The interest rate takes on a dual role of rationing credit and operating as an indirect mechanism for screening and regulating the risk composition of the lender's portfolio (Stiglitz and Weiss, 1981). When there is an excess demand for loans at a given interest rate, the interest rate no longer rises to fully choke off demand, as it would in the perfect markets world. Lenders know that, because of moral hazard and adverse selection, increasing the interest rate behond a certain point reduces their expected profits. As a consequence, they choose to keep the interest rate low enough to obtain a favorable risk composition of projects and borrowers, and to ration available loanable funds through other means.

(c) Indirect screening via the interest rate has an entirely different effect on the equilibrium interest rate and on financial structure than direct screening. Indirect screening is passive and works through a process of self-selection, while direct screening is active and costs resources. Passive screening is consistent with perfect competition and it reduces rates below the level that would exist if information were perfect. Active screening raises the interest rate above the level that would exist under perfect information by passing on information gathering costs to the lender. Active screening also tends to make the credit market imperfectly competitive.

(d) The incompleteness of financial contracts forces lenders to use various indirect devices to address information and enforcement problems. Banks put restrictions in loan contracts which limit access to funds through credit ceilings. They require compensating balances, thereby raising the effective cost of capital but reduce default risks. They ask for collateral, and they put restrictions on the use of inputs. Moreover, lenders exert greater control over borrowers by issuing short-term debt only, in effect forcing debtors to regularly account for their actions.[3] In essence, all these devices limit the consequences of barriers to transactions. But since they affect some borrowers and lenders more than others, they tend to segment credit markets. Collateral requirements, for example, severely limit the sphere of operation of commercial banks because many borrowers simply do not have the required net worth.

[3]This reason is probably an important factor behind the underdevelopment of markets for long-term credit.

(e) Direct screening creates relation-specific capital between lender and borrower. This capital is accumulated over time through repeated interaction. Consequently, borrovers find it difficult to shift from one lender to another as it takes time for them to build a relation of trust with the new lender. This lead to a monopolistically competitive financial market structure with interest rate spreads between different segments of the urban credit market. Each lender faces a downward sloping demand curve from borrowers tied to him, so that he can price at above marginal cost. But the entry of new lenders keeps pure profits close to zero by driving price down to average cost.

(f) Limited information and enforcement preclude most firms from using the financial markets to perfectly insure against sudden needs for funds. Hence, firms find it difficult to smooth cash flow fluctuations. Intermediaries offer liquidity in essentially two ways. One way is through an arrangement made ex ante to instantaneously provide short-term loans on request. Examples of such arrangements are the overdrafts facilities and lines of credit offered by commercial banks to their customers. The second way is to establish an informal and ongoing relationship with a potential borrower with the understanding that funds can be borrowed under extremely short notice. This approach is usually the one favored by informal lenders.

Interest Rate Premia

Mitigating incentive and enforcement problems involves an array of direct and indirect mechanisms which restrict financial contracts and require active intervention by lenders. These mechanisms introduce real costs in the credit supply process. In this way a wedge emerges between the cost of internal funds and the price a firm must pay for uncollateralized external funds. The premium for external funds compensates for the real costs to lenders of resolving incentive problems with borrowers (Bernanke and Gertler, 1989, 1990; Townsend, 1979; Williamson, 1987). The premium paid over and above the riskless interest rate includes elements to cover both systemic and idiosyncratic risk, because firm-specific idiosyncratic risks can no longer be perfectly "smoothed out" by a perfectly functioning credit-cum-insurance markets.

The premium on external funds has two components -- one implicit and one explicit. The magnitude of each depends on the nature of existing incentive problems and of financial market imperfections. The *explicit* component of the premium on external funds compensates lenders for the direct mechanisms necessary to deal with incentive problems, such as project evaluation, monitoring, and collateral appraisal. The *implicit* component of the premium arises because, in the presence of informational problems, some borrowers are subject to statistical discrimination. That is, lenders are unable to sort out the precise creditworthiness of each borrower; so they treat borrowers based on the average characteristics of the groups to which they belong -- say, the large enterprise group, the medium enterprise group or the small enterprise group. Borrowers who belong to a less creditworthy group end up paying a lemons premium over that paid by borrowers who belong to a more reliable group. The implicit premium varies with any restrictions imposed on the loan by lenders. Such restrictions can cause the borrower to lose potential returns from his investment. For example, if the lender restricts the loan size, the borrower may be unable to purchase the required inputs and produce enough to meet market demand, thereby suffering a loss in expected returns. The implicit component of the premium in this case includes the borrower's loss in expected profits.

In response to financial market imperfections institutions emerge that act to reduce the premium on external funds. Financial intermediation with all associated indirect and direct mechanisms is part of this response. It can be seen as an efficient way to minimize the premium caused by market imperfections (Boyd and Prescott, 1986; Gertler, 1988). By providing economies of scale and increasing expertise in evaluating borrowers, structuring borrowers' incentives and diversifying loan portfolios, financial intermediaries reduce the costs and potential allocative distortions in the flows of funds between savers and investors and, as a consequence, have important implications for real economic activity.

Unfortunately, in Africa, there are factors other than information, communication, and enforcement barriers that reduce the effectiveness of intermediation and raise the costs of the credit supply process. Specifically, African banking is seldom competitive, is highly taxed, and is interfered with politically. Hence, the premium on external funds tends to be much higher in Africa than elsewhere. In addition, because of high inflation, poor infrastructure, and government interference in wage setting, the operating costs of banks are high. One might add that, because of a history of selective credit controls and other aspects of repressed financial systems, private credit intermediation has not been allowed to develop fully. This has an effect on the level of expertise of intermediaries and a consequent impact on the cost and efficiency of credit supply.

Section 4. Trade Credit and Financial Intermediation

Bank Credit vs. Other Forms of Credit

Banks in Sub-Saharan Africa as elsewhere minimize information costs by limiting their activities to a few segments of the credit market. In Ghana and Kenya, we found that banks *de facto* limit themselves to overdrafts and to medium term bank loans, mostly used for the purchase of capital equipment. Both types of credit are normally secured with real property. Banks are not heavily involved in the discounting of post-dated checks or promissory notes, in the circulation of commercial paper, or in the pre-financing of private bonds. The attachment of contracts[4] is extremely rare, and security interest in movable property is seldom taken in isolation from mortgages on real property. As a result, access to bank credit is largely confined to medium and large firms with secure land titles. Banks' inability to reach small firms with little collaterizable property is not peculiar to Africa, however. Biggs (1991) makes similar observations regarding Taiwan.

The distortions introduced by banks' inability to reach small firms and start-ups are only partly compensated by non-bank forms of credit -- trade credit, loans from friends and relatives, and, to a much smaller extent, loans from savings associations. Non-bank credit, however, suffers from the same limitations as the contract enforcement mechanisms on which it rests most strongly: trust and reputation. In the absence of global reputation mechanisms, access to non-bank credit remains confined to the narrow circle of friends and business relations. As a result, borrowers share the good and bad fortune of their circle of friends and relations: if they are doing well, credit is forthcoming; if they are not, credit is restricted. Because the size of the pool from which any individual borrower can draw is limited, an efficient aggregate allocation of resources cannot be achieved. Non-bank credit is unable to entirely correct distortions in access to credit.

[4]A legal procedure by which a commercial contract is 'attached' to a bank loan as security.

Motives for Trade Credit

Trade credit is a form of short term financing that is linked to the purchase of goods. It is by far the most important source of non-bank credit for Kenyan firms. It encompasses four types of situations: (a) supplier credit (goods received from suppliers on the understanding that payment is to be made later); (b) customer credit (goods delivered to clients on the understanding that payment is to be made later); (c) advances to suppliers (pre-payment to suppliers for goods and services to be received later); and (d) advances from customers (pre-payment received from clients for goods and services to be supplied later). Trade credit constitutes a substantial part of short-term financing for most companies in industrialized countries, but pre-payments, in the form of (c) and (d) above, are relatively insignificant. For example, in the U.S. in 1983, trade debt was the single largest source of credit for U.S. non-financial corporations. Accounts payable amounted to some $428 billion; in comparison, bank loans outstanding equaled $402 billion (Bench (1987)). Unlike bank loans and overdrafts, trade credit tends to be unsecured by physical collateral, although it is usually backed by various legal instruments and private enforcement strategies.

Trade credit arrangements in the U.S. vary considerably across sectors and firms (Schwartz and Whitcomb, 1981). Which customers are given access to trade credit, the instruments used to enforce compliance, the discount rates and periods to maturity, the flexibility allowed in delaying repayment, all appear to vary with the characteristics of the goods transacted, the size of the firms involved, the length of the relationship between the parties, membership in ethnic groups or trading network, and other factors. To be successful, any framework that attempts to understand trade credit must therefore explain not only why trade credit is offered and chosen from within a wider set of feasible payment forms, but also why different forms of trade credit are observed.

Several explanations have been offered in the literature for the use of trade credit. The older and more standard view is that trade credit arises from financial market imperfections; this is the **financial** or **liquidity motive** for trade credit. Firms with easier access to capital markets pass trade credit to firms with no access to credit or which would be able to obtain credit only on extremely unfavorable terms (Schwarz (1974)). The firm granting credit acts as a financial intermediary, intervening in the market on account of the large spread of borrowing rates. An alternative but related formulation by Emery (1984) interprets this in terms of barriers to banking entry resulting in banks' receiving noncompetitive rents, which nonfinancial firms may seek to compete away be offering trade credit. In agreement with the financial motive for trade credit, small U.S. firms rely more on trade credit than large, and large firms appear to have a cheaper/easier access to bank credit. On the other hand, Schnucker's (1992) survey of U.S. firms suggests that the reality is more complex. Firms were asked whether they agreed with the statement "The use of trade credit suggests to us that the customer cannot obtain financing elsewhere". Half of them said this was "never" true, and 40% said it was "occasionally" true. Furthermore, Schnucker's Probit estimates indicated that more liquid firms were no more likely to offer deferred-payment terms than were less liquid firms. Other motives for trade credit have therefore been proposed.

One is that trade credit arises due to a **transactions motive**. Imagine a world with perfect capital markets, with costless enforcement of contracts, and in which the only costs to firms are those arising from uncertainty in the matching of the time pattern of payment for goods with the time pattern of receipt of goods. In this world, as shown by Ferris (1981), one would observe short-term trade credit arising from the transactions motive. The logic is simple: if both the supplier and the

buyer are unaware of the precise date on which the goods will arrive at the buyer's door, then both are forced to hold idle resources: the buyer holds money to pay the supplier, and the supplier holds inventories to be transferred. By agreeing on terms for payment, the buyer and the seller reduce the *joint* costs of holding idle resources. The buyer receives short-term credit with the goods and can arrange for payment later, thereby avoiding the need to keep cash on hand. As Ferris (1981) notes, the transactions motive alone would lead to only very short trade-credit terms. Furthermore, it fails to explain why firms do not use overdraft facilities instead.

Trade credit may also arise in response to a **sales promotion motive** wherein suppliers are willing to provide credit for a purchase in order to complete the sale (Nadiri (1969)). An implication of this argument is that trade credit terms will be related to the turnover in sales (Johnson and Kahlberg (1986)). Meat and dairy products have rapid turnover rates, so credit terms offered by wholesalers are short, typically a week to ten days. Jewelry, on the other hand has a slow rate of turnover, so credit terms offered to retailers may be as long as six months. A variant of the sales promotion theory for trade credit is that of Long et al. (1992) who argue that small firms have difficulty establishing a reputation for the high quality of their goods. There is more publicly available information about product quality for large firms than smaller ones. In order to compensate and establish a high-quality reputation, small firms will therefore offer trade credit. Neither the sales promotion motive nor the transaction motive, however, explain why producers and merchants of goods get involved in credit activities.

Trade Credit, Information, and Interlinking

The above insights can be combined with the theory of contracts under asymmetric information. In this framework, trade credit is simply regarded as an interlinked contract.[5] In the normal course of product market transactions, information is naturally gathered about the other party's business. Product salesmen, for instance, visit their client's firms to promote a product, deliver goods, or collect payments. Much of the information naturally generated in this process is information that a specialized lender would want to collect to assess the creditworthiness of a potential borrower and to monitor loan repayment. Furthermore, the pattern of input purchases reveals something about the buyer's technology, preferences, market, and other characteristics that are relevant in assessing a borrower's ability and willingness to repay, and vice versa. Economies of scope in information gathering that help explain why the credit and product sale gain from being combined.

By offering credit terms that the buyer cannot obtain elsewhere, the supplier-lender affects the buyer's current product demand (financial motive). To sell more it may thus be in the interest of the supplier to subsidize credit (sales promotion motive). Likewise, by linking credit to an input sale, the lender is better able than an outside lender to establish the destination of the loaned funds. Since the inputs are used in an activity -- production or trade -- that is expected to generate revenue in the near future, the lender is better assured of the borrowers ability to repay. This is in sharp contrast with a specialized lender who lends out money without controlling whether the funds are applied toward income generating activities. The supplier-lender can also punish non-compliance in one

[5]Key references on interlinked credit and tenancy arrangements are: Bardhan (1984), Braverman and Stiglitz (1982), Mitra (1983), Bell (1988), Hayami and Otsuka (1993). For trader-moneylender interlinkages, see Bell and Srinivasan (1989), Hoff and Stiglitz (1993), Gangopadya and Sengupta (1987).

market by withdrawing from another. Linking transactions across a number of markets thus allows punishments and rewards to be combined. So, when a buyer fails to pay outstanding credit, the supplier-lender can threaten to cut off not only further credit, but can also product deliveries. Interrupted deliveries potentially have a more immediate disruptive effect on the buyer. Other, less drastic, implicit threats can also be used. For instance, late credit repayment may lead to less favorable discounts in the future or to a lower priority in deliveries. The latter penalty is particularly severe when supplies are rationed and in short supply. Similar penalties are not available to outside lenders. Trade credit also offers advantages for the borrower. By delaying payment until after delivery, for instance, it enables the buyer to verify the quality of the good before paying for it.

Thanks to interlinkage, lender-suppliers can enforce small short-term loans more cost-effectively than specialized financial intermediaries such as banks. They seldom if ever request formal loan guarantees and prefer to rely on the strength of the relationship they have with their client. In a sense it is the relationship, the trust that supplier and client have established between themselves that serves as collateral for loan repayment. Non-insistence on formal collateral thus enables trade credit to reach firms that would not qualify for credit from specialized financial institutions. Trade credit does not exist in isolation from formal credit, however. Firms who give trade credit are in effect financial intermediators. They use the credit they receive from a variety of internal and external sources, including overdraft facilities and bank loans, to extend credit to other firms. The resulting arrangement can be thought of as one by which banks implicitly delegate to their client the monitoring and enforcement of loans to others. In exchange, firms are able to charge an implicit interest rate that is higher than the one charged by the bank. To the extent that firms rationed out of bank credit have access to trade credit, bank funds can be channelled to them indirectly by lending to their suppliers and clients. In this way, the reluctance of banks to lend without collateral is bypassed without encouraging default. Promoting trade credit can thus potentially reduce the restrictions to investment and entry that result from the rationing of bank credit; it is potentially a way of improving aggregate efficiency.

Section 5. Market Imperfections, Financial Structure and Enterprise Investment Behavior

Financial Structure and Investment

We are now ready to examine the effects of market imperfections in financial markets on the investment behavior of firms. The magnitude of these effects depend on the interplay between three factors: (a) the nature and magnitude of financial market imperfections; (b) the financial structure that evolves as a response to these market deficiencies; and (c) the financial structure and financial position of the firms themselves. Altough it is hazardous to make predictions without detailed and precise information about each of these factors, several general propositions nevertheless emerge from theoretical and empirical studies.

First, the existence of a premium for external funds distorts the investment decisions of borrowers. This is illustrated in Figures 1. Supply and demand curves for investment funds under the assumption that perfect markets prevail are represented by (S) and (D). Supply and demand curves under conditions of financial market imperfections are represented by (S_1) and (D_1). In a frictionless markets world, the supply of investment funds is completely elastic: funds from all sources are available to all borrowers at the prevailing opportunity cost of capital (ρ). The cost of capital

under perfect markets has two components: the riskless rate (r) -- say, the treasury bill interest rate -- plus a component representing economy-wide systemic risk (e). The firms' desired demand for investment funds, represented by demand curve (D), is downward sloping because expected marginal increases in output from increasing increments of investment is diminishing. The socially efficient level of investment (I) is the first best equilibrium. This equilibrium occurs because, in order to maximize the value of the firm, entrepreneurs and managers keep on investing up to the point where the marginal returns from the investment equal the prevailing cost of capital. In this idealized world, *only* shifts in demand influence the equilibrium levels of investment. Real economic factors, not financial factors, affect economic growth because at the prevailing opportunity cost of capital, supplies of funds are automatically forthcoming.

When information problems exist and contracts are costly to enforce, incentive problems crop up between borrowers and lenders and borrowers must be evaluated and monitored. To offset such costs, intermediaries charge a premium for uncollateralized external funds. Assume that firms have external resources (w) which can be used to finance investment directly or as collateral to obtain outside funding. The premium for external funds then begins at a point (w) above which enterprise resources for direct investment and collateral are depleted. Above point (w) the supply of funds becomes more inelastic and the loan rate rises to offset the lender's cost in resolving incentive problems with borrowers. In Figure 1, the premium for external funds is represented by (γ), the difference between (ρ) and the new loan rate (r^*) or line segment AB. The premium distorts investment spending away from the social optimum. A new equilibrium emerges at I_1.

This equilibrium, however, fails to recognize that the effective investment demand is also affected by financial market imperfections. With perfect markets firms are always able to pool risks and obtain the desired amount of liquidity and insurance from financial markets. In the presence of market imperfections, firms are forced to self-insure and find ways to offset cash flow volatility. If firms can not get enough insurance or are not assured of securing liquidity on a timely basis, entrepreneurs behave in a more risk averse way, causing effective investment demand to decrease (Sandmo, 1970). More funds must also be held as precautionary balances or "buffer funds" (Kimball, 1990; Zeldes, 1989) and fewer resources devoted to investment. Accordingly, (D) rotates downward to D_1. In equilibrium, real investment activity is lower at (I_2), as a result of the influence of market frictions on both demand and supply.

Suppose now that as the supply of external finance increases and the loan rate rises, the quality mix of borrowers declines (adverse selection) or the good borrowers select riskier projects (moral hazard) (Stiglitz and Weiss, 1981). Beyond a certain interest rate, further increases in the loan rate reduce the expected return to lenders. Consequently financial intermediaries cap the interest rate they charge to their borrowers and the remaining excess demand for loanable funds is rationed. The supply curve (S_1) thus bends backwards: market equilibrium is determined by quantity rationing, not price equilibrium. This situation is depicted in Figure 2. Among the firms generally rationed are many small and new firms which are relatively information-intensive and present costly enforcement problems compared to larger, mature borrowers. As Figure 2 shows, rationed borrowers are liquidity-constrained and are unable to realize their desired levels of investment.

The Firm's Net Worth

The premium for external funds, and thus the magnitude of distortion of the firm's investment spending, vary inversely with the firm's net worth (w). In contradiction to the predictions of the perfect market's model, the firm's financial structure does matter. A higher net worth implies that the borrower has more funds available either to use directly for project finance or to put up for collateral in obtaining outside funds. This reduces the premium on external funds because it lowers the informational risk of the lender. Collateral, in short, is a substitute for information. Higher use of the firm's internal funds to invest in the project or higher collateral serves to align the borrower's incentives more closely to the lenders. In Figure 1, an increase in the firm's net worth shifts the loan supply curve to the right from (W_1S_1) to (W_2S_2). The resulting decline in the premium for external funds reduces the borrower's cost of obtaining funds and stimulates investment.

The borrower's net worth also affects the degree of credit rationing. In Figure 2, as the firm's net worth increases and (W) moves rightward, the lender's expected profits from supplying loans increases. Eventually, the firm's demand for funds no longer exceeds the lender's willingness to supply funds and the rationing equilibrium turns into a price equilibrium with or without risk premium. The opposite is true if net worth declines. Suppose, for example, that a structural reform program leads to a decline in a firm's net worth -- e.g., a devaluation raises the firm's debt, or a fall in real wages coincident with the reforms reduces the demand for the firm's product. Financial intermediaries, as a consequence, shift back loan supply, causing investment to fall. The desired demand for investment may drop even further because the firm's desired investment goes down. Lower net worth indeed reduces the borrower's ability to self-insure against cash flow shocks or to obtain an overdraft facility from the bank. As a result, the borrower's willingness to bear risk declines, reducing investment from the demand side.

Firm Size and Technology Choice

Because liquidity risk is positively related to firm size and because barriers to credit increase the risk of doing business, entrepreneurs unable to self-insure against large risks may prefer to remain small and to diversify their activities in whatever way they can. For instance they may start a new firm instead of expanding the one they currently operate, or they may encourage sons and relatives to engage in different lines of business instead of joining theirs. For similar reasons, they may keep a job as government employees even though their attention is entirely absorbed by the successful business they have on the side. Firms remain inefficiently small and gains from increased size fail to be realized.

Barriers to credit also affect technology choices. If access to credit is partly determined by the collateral value of the investment, purchases of land, buildings, and vehicles are facilitated while the building up of stocks, wage fund, and credit to customers are not. This may result in the adoption by large firms of capital intensive methods of production and in an emphasis on production instead of marketing, even though labor intensive methods may be more efficient and an improvement in marketing much needed. Moreover, if technology is lumpy, small firms and start-ups may be unable afford the best available technique of production. Risk also makes firms reluctant to experiment with unknown technologies (Binswanger and Sillers (1983)). They may reduce risk by opting for a flexible organization of their business. For instance, investors may prefer multi-purpose technologies that can easily be affected to new tasks, even if it means bypassing state of the art specialized equipment. They may avoid investments in equipment and technology not because they could not get a bank to finance it but because rigid loan repayment obligations would put the firm at risk. In all these cases, some of

the gains from specialization and learning by doing are not captured and the size distribution of firms remains inefficient (Biggs (1993), Fafchamps (1991)).

Allocative Efficiency, Sectoral Investment and Structural Adjustment

Barriers to credit also generate allocative inefficiencies and pull resources away from manufacturing. Allocative efficiencies are generated because the investment projects that get financed may not be those with the highest return. This is true whenever there is not a perfect match between investment opportunities and the allocation of credit. If firms that have long been in existence find it easier to access credit while new firms cannot, certain firms will outlive their usefulness and competition through firm entry will be stunted. The sectoral allocation of investment is affected because lost investment opportunities and inefficient production choices reduce aggregate returns to industrial capital. As a result, funds are chased to uses other than manufacturing -- commerce, government bonds, and capital flight. This process gets reinforced if, to reduce their exposure to risk, investors are drawn toward operations with a rapid turnover like commerce, or to financial investments with a safe return abroad. Ultimately the absence of safe and high return investment opportunities in the country reduces domestic savings and encourages luxurious consumption by the wealthy.

If the economy is affected by large a aggregate shock like structural adjustment, the existence of barriers to credit slows economic response to changes in relative prices. Large established firms may survive thanks to better access to credit even though their profitability has eroded. But because the emergence and growth of new firms is stifled by barriers to credit, the new investment opportunities opened by structural adjustment are not fully taken advantage of. This effect is particularly noticeable in manufacturing exports. African countries that have gone through extensive adjustment have seen a large improvement in their international competitivity (RPED "Can Africa Compete?", 1993). Yet the export supply response has so far been excruciatingly slow.

Section 6. Financial Structure, Industrial Structure, and Economic Performance

In a world with asymmetric information and weak legal enforcement, the relative importance of various types of financial intermediaries and the relative use of various financial instruments depends on the structure of the economy itself. To make this clear, consider the following example which is a stylization of Kenyan realities. Suppose there are two types of intermediaries, banks and firms, and two types of financial contracts, fully collaterized bank loans and trade credit. Moreover, suppose that large firms qualify for both bank loans and trade credit, medium firms qualify only for trade credit, and small firms do not receive either. Then the financial structure of the economy is entirely determined by the size distribution of firms.

Figure 3 illustrates what happens. Firm size is measured along the *x* axis, the density of the size distribution of firms is measured along the left *y* axis, and the cost of credit is measured along the right *y* axis. The bank loan curve B represents the cost of bank credit as a function of firm size. Because they cannot meet bank requirements, firms of a size smaller than a do not qualify for bank credit. The trade credit curve T similarly represents the cost of trade credit as a function of firm size; firms smaller than b do not receive trade credit. b is strictly below alpha: through interlinking, traders and manufacturers are able to enforce credit contracts even when credit recipients do not qualify for

bank credit. The size distribution of firms is represented by curve S. Then the relative importance of no-credit, trade credit, and bank credit depend upon the size distribution of firms. Another size distribution of firms would lead to a different financial structure. Curve S', for instance, portrays the missing middle situation: in the absence of medium size firms, less trade credit is used in the economy.

The relationship between the size distribution of firms and the financial structure of the economy has an effect on economic performance. First, the size of the market for specialized financial services depends on the number of firms who would potentially qualify for such services. If only a few large firms exist that could take advantage of them, the market may be so small as to discourage the investment required to provide them. Think of organized markets for equity and bonds, stock market operations brokering, underwriting services, the handling of letters of credit, the endorsement of bills and post-dated checks, credit reference services, futures markets in currency and commodities, the use of warehousing and transport documents as a basis for short-term credit, etc. The absence of many of these specialized services has been blamed for low firm profitability in Africa and for the resulting low levels of direct foreign investment in the continent.

Second, growth and development imply structural transformation and the emergence of new firms undertaking new economic activities. Adjustment to macroeconomic shocks similarly requires that certain economic activities and firms disappear and that others emerge in their place. Suppose that most firms start with little capital, an assumption largely true in the case of Sub-Saharan Africa, and that firm growth depends on their ability to accumulate retained earnings and to raise outside funds. If start-ups have no or little access to credit, the adjustment and growth processes are slowed. In Figure 3, firms that grow become eligible for trade credit well before they qualify for bank credit. Suppose that the size distribution of firms is such that there is a missing middle, as portrayed by curve S'. Then financial intermediation from large to small firms by medium firms through trade credit is impeded. As a result, new firms have more difficulties expanding production than in the presence of a vigorous group of medium firms, as was the case in Taiwan during its rapid growth. Short of changing the size distribution of firms directly, one can support growth and adjustment by lowering the boundaries that determine access to credit.

Third, the financial structure is to some extent self-fulfilling. If certain categories of firms do not qualify for credit, they are more subject to shocks than if they did. As a result they are less able to face contractual obligations and are less reliable borrowers. The probability of repayment problem is thus positively related to access to credit in general. Those who try to lend to sharply credit constrained firms indeed encounter repayment problems, not just because some of the firms they face are intrinsically bad payers -- i.e., that are not profitable, poorly managed, or even dishonest -- but also because many of them have insufficient access to credit. Expectations, and thus statistical discrimination become self-fulfilling as individual lenders' experiences comfort them in their expectations of poor repayment performance. We shall revisit the issue of statistical discrimination in the second part of this report. Let us note here that firms that belong to a category that is statistically discriminated against will be hindered in their expansion. Aggregate growth is hurt in the process.

Chapter 2. Institutions for the Enforcement of Contracts

This chapter focuses on the institutional and contractual mechanisms that enable credit transactions to take place. Our Ariane thread is contract enforcement. We take the Williamsonian view that nobody likes to be cheated, but that (some) people do not mind cheating others if they can get away with it. Institutions and contracts must therefore be robust to opportunistic behavior, i.e., they must not unravel in the presence of purely selfish behavior by some. Applied to credit, this view implies that loans will not be made unless institutions exist that punish opportunistic default. Examining the mechanisms by which credit contracts are enforced is therefore fundamental in understanding who gives credit to whom and who does not qualify for credit. Concepts and analytical tools that apprehend enforcement problems are introduced in section 1. The role of the legal system is discussed in section 2.

Section 1. Enforcement, Information, and Access to Credit

Enforcement Mechanisms

Contracts are not respected whenever economic agents are unable or unwilling to comply with their obligations.[6] Willingness to comply is assured only if an enforcement mechanism exists that penalizes breach of contract. In the absence of any enforcement mechanism, opportunistic breach of contract cannot be prevented and certain mutual gains from trade are not realized. The temptation to renege on a contract depends on the difference between the subjective payoffs from default and compliance. Payoffs are a function of parties' preferences, technology, exit option, and honesty, as well as of the punishment for default. The strength of the punishment itself depends on the form of enforcement mechanism. Better information about the determinants of someone's payoff and potential punishement helps infer whether that person would subjectively gain or loose from opportunistic breach of contract. Information thus helps predict the chances of opportunistic default, but it is useful only in combination with knowledge about the enforcement mechanism.

Enforcement mechanisms come in three varieties: those based on guilt, those based on coercion, and those based on repeated interaction. Mechanisms based on guilt are internal to each individual. Guilt may result from altruism, affection, and social identification with the interest of a group. It may also follow from business honesty or 'generalized morality' in the words of Platteau (1991). The ability to feel guilty for breaking one's promises is largely the byproduct of upbringing -- what psychologists call 'secondary socialization' (Platteau (1991)) -- and is not directly observable. It is nevertheless influenced by cultural values and religious beliefs. Professed beliefs and religious fervorc can thus be used to infer someone's business honesty. Whenever business ethics are not widely accepted and practiced, business communities around the world use upbringing, ethnicity, and religious faith as signaling devices.[7] To become member of a particular business community, one may

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[6]Unwillingness to comply with contractual obligations is what McKinnon calls 'strategic default' (1973). Laywers refer to it as 'opportunistic breach of contract'.

[7]In Africa, for instance, merchant communities often organize around a particular religious faith: Islam and Muslim brotherhood (Ensminger (1992), Cohen (1969)) or, more recently, evangelical churches (Poewe (1989)). In

have to convert to their faith or to marry into their group. Prejudice against non-members can be strong. If excluded people find it harder to fulfill contractual obligations as a result of their exclusion, prejudice about their lack of honesty can even be self-reinforcing.[8]

Enforcement mechanisms that rely on coercion are of two types: legitimate and illegitimate. The legal enforcement of contracts through courts and tribunals ultimately relies on the state's monopoly of the use of legitimate force (Benson, 1990). It is the backing of legitimate force that allows a creditor to seize a debtor's assets and grants a collateral value to unmovable property like land and buildings. Illegitimate force can also be used to enforce contractual obligations (Gambetta, 19??). Parties may resort to insult and violence directly, or call upon the services of armed men -- e.g., hire thugs, bribe soldiers and policemen (Fafchamps, 1994). Whether legitimate or illegitimate, the use of coercion to enforce contracts is costly. For small transactions the cost of legal proceedings is typically too high to justify court action.

The third type of enforcement mechanism is based on quid pro quo: 'I shall continue to behave if you continue to behave' (Axelrod (1984), Fudenberg and Maskin (1986)).[9] For such a mechanism to work, parties must interact repeatedly over time. It is the threat of future punishment that makes economic agents comply with their contractual obligations. Punishment takes various forms. The simplest of them is the refusal to further transact on the same terms. For this punishment to have an effect, the relationship must be something worth preserving. Punishment may also be inflicted by members of a group who were not party to the breached contract (Kandori (1992), Raub and Weesie (1990)).

A Formal Illustration

The above concepts can be illustrated formally. Consider a contract by which an economic agent, called the debtor, promises f at time 1 to another agent, called the creditor, in exchange for k at time 0. Here, f may be a payment or a delivery, k the transfer of goods or an order for future delivery. Parties value k and f differently so that they are potentially gain from trade for both of them.[10] At time 1, the debtor decides whether to comply with the contractual obligation and receive a payoff $p(-f, t, e)$, or to breach the contract and receive a payoff $p(b, t, e)$ but incur punishment. Payoffs depend on the debtor's type $t \in D$ as well as on a state of nature $e \in S$ unknown at time 0 but realized at time 1. We assume that D and S are common knowledge; t is known only to the debtor. We consider four forms of punishments: guilt $G(t, e)$, legal sanctions $P(t, e, C)$, suspension of future trade with the creditor resulting in the loss of discounted future payoff $EV(e, t)$, and damage to reputation with other potential trading partners leading to a loss of trade $EW(e, t)$. The penalty

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the Kenya-Asian community at large, caste and religion similarly serve as dividing lines among various business communities (e.g., the Shahs, Patels, Sikhs, and Ismaelians).

[8] In the course of the Kenya survey, several respondents expressed doubts about the business ethics of members of other groups. The prejudice was often strongest between Kenyan-Asians and Kenyan-Africans, but there was also a lot of suspiscion among Asian sub-groups (e.g., the Shahs, Patels, Sikhs, and Ismaelians). For a discussion of prejudice and self-reinforcement, see Myrdal (1957) for instance.

[9] Applications of this type of enforcement mechanism to contracts first appeared in the literature on sovereign borrowing (Eaton and Gersovitz (1981), Kletzer (1984)).

[10] We assume that suppliers like to receive orders because it allows them to reduce stocks and organize production better.

inflicted to the debtor by each of the possible punishments depends on the debtor's type *t* and on the realized state of nature *e*. The legal penalty also depends on the form of the contract *C*. If the cost of legal procedings is higher than *C*, the creditor cannot credibly threaten to sue and *P(t, e, C)=0*. A rational debtor complies with contractual obligations if the short-term gain from breaching the contract is larger than all punishments combined:

$$\pi(b,\tau,\epsilon)-\pi(-f,\tau,\epsilon) \leq EV(\tau,\epsilon)+EW(\tau,\epsilon)-G(\tau,\epsilon)-P(\tau,\epsilon,C) \quad (1)$$

In some states of nature *e'*, $p(-f, t, e') = -\infty$. The debtor is then said unable to pay. In others, $p(-f, t, e) > -\infty$ but equation (1) is not satisfied. The debtor is then said able but unwilling to pay.[11] The creditor, in turn, parts with *k* in exchange for a future promise of *f*. Let *P(-k)* and *P(f)* be the value of *f* and *k* to the creditor; *P(f)>P(-k)*. In forming beliefs about the probability of getting *f*, a rational creditor evaluates the probability that equation (1) will be satisfied given all the information *W* available to him at time *0*; *W* combines priors about the distribution of potential debtor types, information gathered over time through direct interaction with the debtor, and information conveyed by others about the debtor. The creditor agrees to contract if:

$$E(\Pi(f)|\Omega)-\Pi(k) > 0 \quad (2) \quad (2)$$

Moral Hazard, Adverse Selection, and Other Information Issues

Equations (1) and (2) encompass many other information issues. Moral hazard occurs whenever the state of the world *e* depends on the debtor's costly action *a* (Greenwald, Stiglitz and Weiss (1984)). Success in business is largely function of the diligence and care with which firms conduct their operations. Moral hazard is thus likely to be present in business contracts. The potential for adverse selection is there as well. Suppose that *S(t)* so that certain types of economic agents are more likely to be unable to pay than others. Agents who are bad risks would find it in their interest to assume contractual obligations knowing that there is a high probability they will be unable to satisfy them. As a result, trade credit may need to be rationed (Stiglitz and Weiss (1981)). Because of moral hazard and adverse selection, the boundary between inability and unwillingness to comply with *bona fide* contractual obligations, while (somewhat) precise *ex post*, is blurred *ex ante*: any breach of contract is potentially the result of opportunistic behavior. If, for instance, the penalty for breach of contract is infinite, no one will enter into any contract without being absolutely certain of being able to comply (Zame, 1993).[12] Moral hazard and adverse selection would be prevented. The potential for moral hazard and adverse selection thus also depends on penalties for noncompliance.

The simple model captured by equations (1) and (2) can be used to throw light on a variety of behaviors, many of which were uncovered during the survey. The effectiveness of punishment

[11]The disctinction between inability and unwillingness to repay is blurred in practice. For equity reasons, debtors often are regarded as unable to repay when $p(-f, t, e)$ fall below a socially unacceptable level $B>-\infty$.

[12]Except if one is already facing a certain prospect of infinitely negative utility. Someone who is starving, for instance, may borrow money even if failure to repay is punished by death.

mechanisms and the ability to comply with contractual obligations depend on someone's type *t*, in particular whether one is a fly-by-night operator or an experienced business concern with a high probability of being able to comply *Ep(-f, t, e)* and a high interest in future trade *EV(t, e)*. It may thus be optimal to acquire costly information about someone's type. Suppliers, for instance, investigate potential clients by visiting their workshop and socializing with them. They assess their clients' competence and business potential *F(p(-f, t, e))* by observing how regular and large purchases are and how clients bargain on price and quality. They test clients' honesty *G(t, e)* and interest in a continued relationship *EV(t, e)* by selling small quantities on credit over a period of time and observing whether payment is forthcoming. Creditors may also rely on easily observable characteristics like sex, race, or ethnicity to infer someone's type. Small differences in population averages can then lead to statistical discrimination (Coate and Loury (1993)) and induce the domination of certain ethnic groups over particular sectors of activity (Macharia (1988)). Debtors may differentiate themselves by acquiring a costly signal *s* that is correlated with their true type *t*. For instance, they may join religious groups or activities to impress potential creditors of their higher ethics *G(t, e)* (Cohen (1969), Geertz, Geertz, and Rosen (1979)).

As economic agents learn about each other and update their priors *W*, they begin to trust each other (Gambetta (1988), Fafchamps (1992b)). Trust can be thought of as a social capital that can be accumulated over time through 'good' actions and dissipated through 'bad' actions (Coleman (1988)). Now consider a risk averse firm that has identified a few reliable business partners. The information *W* the firm has accumulated on its partners is more precise than *D*, the information it has on the general population of potential trading partners. Reliable partners are also probably better than the average population *D* because they are the result of a selection process. Therefore *W* stochastically dominate *D*: because it is risk averse, the firm prefers to deal with known partners than with unknown firms (Arrow (1971)). The reluctance to deal with newcomers in the same way (trade credit, checks, orders) as old partners leads to personalized exchange: networks are formed, cliques established, and firm entry and competition stifled (Lorenz (1988), Fafchamps (1992c)).

Enforcement mechanisms that operate within a large group, namely, legal enforcement and reputation, enable firms to deal with each other in a business-like fashion without having to establish personalized relations first. Large transactions with a well defined legal enforcement mechanism based on unmovable collateral or other formal guarantees *C* do not require prior personal acquaintance; they rely on a high *P(t, e, C)*. Bank loans fall within this category. Firms may also rely on reputation. Reputable firms who belong to an information sharing group have a high *EW(t, e)* with all the firms in that group, irrespective of whether they have dealt with them in the past or not. This may be sufficient to ensure that equation (1) holds and to generate sufficient confidence for business-like transactions right from the start (Greif (1993), Milgrom, North and Weingast (1991)). Firms within the information sharing group are thus at an advantage relative to firms who outside of it. The larger the group among which reputation is shared, the larger the group of potential business partners, and the more access firms have to a safe business environment.

Risk Sharing

The desire to discourage opportunistic behavior through better enforcement may, however, conflict with the need for risk sharing. Business around the world, but particularly in Africa, is subject to shocks. Cash flows vary in unpredictable ways. Firms with insufficient access to insurance and

credit from other sources often find themselves unable to honor precise deadlines for payment and delivery. Too strict a stance on contract enforcement would be counterproductive for both parties, and Pareto inferior from society's point of view (Zame, 1993). Many cases of noncompliance are probably 'excusable' in the sense of Grossman and van Huyck (1988) in that they were anticipated and implicitly accepted *ex ante* by the other party (see also Eaton and Gersovitz (1981), Kletzer (1984) and Udry (1990)). One would therefore expect to observe flexible contracts in which payment *f(e)* is contingent on the state of the world *e*.

In practice, state-contingent contracts are difficult to write and *e* is seldom verifiable by judges. Instead, parties may implicitly agree beforehand to renegotiate *ex post* their contractual obligations whenever they find compliance difficult or unfairly costly. Whenever contract renegotiation remains within 'reasonable', that is, implicitly agreed upon boundaries, parties are likely to resume business afterwards. If one party tries to abuse the other, the relationship is more likely to end. For risk sharing through contract renegotiation to be possible creditors must be able to observe or verify *e*, that is, whether a debtor is truly unable to comply with contractual obligations or not. Otherwise a recalcitrant debtor could falsely pretend to be unable to pay. Debtors may be dissuaded from making false claims by increasing the penalty for default, but this conflicts with insurance and equity objectives. In practice, costly monitoring of *e* by creditors is often required for risk sharing to take place (Fafchamps, 1992, 1994).

Section 2. Collateral and the Role of the Legal System

Contract Enforcement Without State

The existence of a legal system helps contract enforcement. But to deter opportunistic breach, penalties must not only be sufficiently severe, the threat of penalty must also be credible. For the creditor, the cost of inflicting the penalty must not be larger than the expected gain from punishment. Legal enforcement, by the nature of the conflict adjudication procedure, entails high costs and delays. It is also time consuming. The threat of legal enforcement is therefore rarely credible for small transactions. Yet the majority of economic transactions in Africa are small: most firms operate in a small way; and poor people transact in small amounts. Understanding enforcement mechanisms that do not rely directly on laws and courts is therefore crucial to comprehend how economic transactions take place in Africa.

Contracts with delayed obligations, like those with an element of credit or insurance, can in principle be enforced without the protection of a legal system (North (1990), Benson (1990)). The study of sovereign debt, for instance, has shown that contracts can be enforced in the absence of an authority entitled to seize the goods of the debtor country, provided that parties interact over time (Eaton and Gersovitz (1981), Kletzer (1984)). Breach of contract is punished by the refusal to transact in the future. If the expected discounted value of the continued relationship is sufficiently high, debtors will find it in their interest to pay their debts. The same reasoning can be applied to private debt contracts: self-interested debtors may be induced to pay creditors if failing to do so endangers their ability to conduct future business. Two concepts are particularly relevant here: trust and reputation.

Parties that do business with each other over time come to know and trust each other. Breach of contract is prevented for fear to lose the other party's trust and therefore the ability to do business with her. Trust can thus be looked upon as a relation-specific, individualized and non-transferable asset, a form of **social capital** that serves as collateral for business transactions between the two parties (Coleman, 1988). The collateral value of trust depends on the expected discounted value of the business relationship. Access to supplier credit, for instance, requires the suppliers' trust. But if firms can easily find goods and credit elsewhere, self-interest no longer dictates that the relationship with a particular supplier be something worth preserving. For trust to be an effective enforcement mechanism, parties must have little or no access to supplies and credit elsewhere. This condition is satisfied whenever all transactions with delayed contractual obligations are individualized. In Ghana, for instance, firms received trade credit only from suppliers who knew them personally (Fafchamps, 1994).

Contract enforcement on the sole basis of trust is a completely decentralized mechanism that requires no or little coordination among agents. But it suffers from many drawbacks in terms of economic efficiency. Parties must know enough about each other's technology, preferences and honesty before they begin to trust one another. Screening is therefore required to assess potential business partners. A trial period may be required during which transactions are organized to minimize the chances of strategic default (Colson (1974), Sahlins (1972)). A carpenter, for instance, may have to buy lumber cash for several months before getting supplier credit. Because firms minimize on screening costs, trust-based enforcement tends to freeze business relationships over long periods of time. As a result of the personalization of economic transactions, economic mobility becomes restricted: economic activity remains confined within networks of traders and firms. Trust-based enforcement thus has a cost in terms of competition and efficiency (Geertz, Geertz and Rosen (1979), Fafchamps (1992)).

Enforcing contracts solely on the basis of interpersonal trust is wasteful because it does not economize on screening costs: the reliability of a supplier or client must be assessed independently by each firm. Screening costs could be reduced, however, if information about past contractual performance could be shared among firms in the economy at large or, more modestly, within a group. This is precisely the purpose of a **reputation mechanism:** someone's reputation is used by other members of the group as a signal to ostracize those who have failed to live by the contractual or ethical standards of the group (Benson (1990), Kandori (1992), Raub and Weesie (1990)). Reputation can again be thought of a form of social capital that is used as collateral in business transactions. Members who have lost their reputation can no longer conduct regular business not just with those they have deceived but with all the members of the group. To be credible, the threat of group ostracism must be backed by sanctions for those who fail to participate to the punishment. Group cohesion is thus a precondition for a viable decentralized reputation mechanism. It should therefore not come as a surprise if, in Kenya as historically in other parts of the world, reputation mechanisms are most effective among small cosmopolitan communities (Greif, 1993).[13] Contract enforcement based on reputation has two advantages: it saves on screening costs, and it increases the severity of the punishment for breach of contract, thereby making contract enforcement easier.

[13]The lack of political clout and the more or less permanent threat of persecution for Jews in medieval Europe and Armenians in medieval Iran have, for instance, been cited as a factor favoring group cohesion (Braudel (1986)).

Thanks to a reputation mechanisms, supplier credit, for instance, may be granted without trial period. Trade mobility and efficiency are thus greatly increased within the boundaries of the group. The larger the group, the more efficient the outcome. Trade across group boundaries, however, continues to rely on other enforcement mechanisms.

Reputation-based enforcement requires the transmission of information: each agent must be kept informed of the contractual history of other members of the group. Information transmission can, in principle, take a variety of forms, from the crudest -- e.g., gossip -- to the most sophisticated -- e.g., a computer-based data bank of credit ratings. Any reputation mechanism is vulnerable to mistakes in the transmission of information and to deliberate misinformation. Crude decentralized mechanisms like gossip are unreliable because they provide no way of independently judging the quality of the information they convey. A simple alternative is the practice of personal recommendation, as when a new client is recommended for supplier credit by an established customer (Cuevas et al. (1993)).[14] Because the person doing the recommending implicitly puts her own reputation on the line, unreliable agents are unlikely to find someone to recommend them. Agents who are not recommended are therefore, on average, less reliable than those who are. The practice of recommendation thus successfully conveys reliable information in an incentive compatible, decentralized fashion. But it remains inefficient: information spreads slowly, economic mobility is restricted along network lines, entry by new agents is difficult, and the better connected collect economic rents.

Economic efficiency is improved if information is spread faster, more widely, and more reliably (Kandori (1992), Raub and Weesie (1990)). Organizing the dissemination of information can thus improve on informal reputation mechanisms based on gossip and personal recommendation. Institutions can explicitly be put in place to verify, store, and transferinformation on contractual performance (Milgrom, North and Weingast, 1991). They take a variety of forms. All require some form of collective action but they do not all necessitate the intervention of the state. Public reprimand by a social or religious leader, for instance, may be used to trigger ostracism by the group (Cohen (1969)). The leader's ethical and social clout minimizes the chance that someone's reputation would be ruined for private gain. A specialized firm may centralize credit history information and sell it to financial institutions to facilitate screening. The emergence of such a firm supposes that credit givers agree to share information about their curstomers. A vocal free press can be used to police abuses of consumer confidence, malfeasance being discouraged by laws on defamation. The names of those who bounce promissory notes may be officially published, as is done in continental Europe, after the failure to pay has been formally certified by a judge. As these examples show, reputation mechanisms can be made more effective by public and private institutions that support them. There is, therefore, a role for law other than the direct enforcement of contracts by courts and tribunals, that of helping informal reputation mechanisms reach a wider audience and be more reliable. The legal system may also detach certain contractual instruments from the business transaction from which they originate, thereby conferring them a quasi-objective value that can serve as a basis for an information sharing mechanism -- e.g., laws penalizing bounced checks.

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[14]In the U.S., half the job vacancies are filled through personal recommendations by other workers (Montgomery, 1991).

Laws and Tribunals

Although it would be a mistake to believe that contracts are respected thanks to contract law, laws and tribunals should not be dismissed as marginal either. The legal system complements informal enforcement mechanisms. Well defined legal contracts can be used as a way of increasing the penalty for a breach of trust or loss of reputation. Business partners, for instance, often make verbal or written commitments that have all the qualities of legal contracts without intending to rigidly apply them. Successful business indeed requires flexibility. Business deals gain in being renegotiable, and parties mutually benefit from flexible contract enforcement. Consider, for example, a standard loan contract by which a debtor promises to pay a certain amount by such and such date. Borrower and lender know that the debtor may run into unanticipated liquidity problems. They may have an implicit understanding that, should such an event occur, a reasonable delay will be granted. If the debtor sought to abuse the situation, however, the explicit legal contract would serve as the basis for court action. The existence of a legal contract thus does not prevent parties from modulating contract compliance as a function of circumstances, quite the contrary. By providing an additional safeguard against abuse, it actually encourages parties to be flexibility. The purpose of the legal system is not to supplant trust and reputation mechanisms but to complement them.

Credit and Collateral

Laws also exist that directly address the enforcement problem inherent to all credit contracts. They put in place specific institutions that grant collateral value to certain assets, like the laws and administrative procedures governing the titling of land, the registration of movable property, and the recording of security interests. These institutions have an impact on the enforcement of credit contracts that often goes beyond that of contract law proper, but that depends on the details of their bureaucratic implementation. The most general type of collateral is the provision that someone's assets serve his debts, except for restrictions granted by bankruptcy laws. This kind of collateral, however, is not secure for two reasons. First, a borrower anticipating that he won't be able to pay his debts may find in his interest to conceal his assets. Second, by taking loans from several lenders, a borrower may incur debt obligations that exceed his net worth even though the value of each individual loan is less than his assets. Lenders seek protection against both forms of opportunistic behavior by earmarking assets for the service of the debt, for instance by mortgaging real property. The mortgage is attached to the property and follows it in the hands of new owners; and new mortgages are subordinated to old ones. Financial institutions around the world rely heavily on mortgages as their primary form of loan security. For it to work effectively, however, many prerequisite must be satisfied: land surveying; land titling; the registration of land transactions and mortgages; etc. These prerequisite are extremely costly. Many African nations have found it beyond their means to provide them beyond the confines of major cities.

Assets other than land and buildings are, by definition, easier to conceal since they are mobile and can be removed from the lender's home or business. Nothing precludes moveable assets from being earmarked, however. Cars for instance, a moveable asset *par excellence,* constitute a relatively secure form of collateral because they are registered**.** Short of falsifying the vehicle's registration papers, official registration makes it difficult for reluctant debtors to liquidate vehicles without the buyer suspecting foul play. Items can also be tagged and their manufacturer's number taken down. The advantage of tagging**,** like registration, is that it warns potential buyers that the seller is not

entitled to sell the item. A lender may also guarantee himself the right to repossess the item used as collateral by retaining full ownership of the financed item. In Kenya, this system is commonly used in leasing (hire-purchase) contracts for vehicles. Another possibilities is for the lender to take a chattel mortgage or a lien on moveable property. Repossession procedures vary from place to place as they try to balance the interests of lenders and borrowers.

The relationship between collateral and credit has received a lot of attention in the economic literature on contracts (e.g., Stiglitz and Weiss (1981, 1983)). The need for collateral is seen as a source of credit rationing: borrowers who cannot offer collateral do not qualify for a loan. In practice, however, loans are often made to purchase goods that serve as collateral, as in the case of home loans and car loans. In this case, the severity of the credit constraint depends on the ratio between the purchase value of the goods bought with the loan, and the amount lent. A low ratio means that the purchased good has a lot of collateral value, that is it more collaterizable. A high ratio means that the purchased good provides little security from the lender's point of view.

The collaterizability of investment items is therefore a major determinant of whether credit for investment can be found. As we have seen, land, buildings and vehicles are easily collaterizable. Investments in land, buildings and vehicles should therefore be the easiest to finance. Investments in stocks and working capital, on the other hand, generate no collaterizable assets; loans for working capital must be secured in another manner. Firms are therefore more likely to face credit constraints in their access to working capital than in their access to land, buildings and vehicles. Investments in equipment occupy an intermediate position, as pieces of machinery may be tagged and earmarked for loan repayment, but their liquidation value is small when markets for equipment are thin, as they typically are in undeveloped countries. Moreover, in the absence of formal registration they remain subject to opportunistic concealment. As a result they are only moderately collaterizable.

This approach suggests another avenue for reducing credit constraints by increasing the collateral value of equipment and working capital. The resale value of used equipment, for instance, could be improved through the establishment of an auction market. Opportunistic concealment of equipment, if it is a concern of potential lenders, could be discouraged through the establishment of a machinery and equipment registry. So doing, the collaterizability of equipment items should improve and their financing should be facilitated. Account receivables can also gain collateral value when the reputation of the person or firm who has issued the post-dated check or the bill of exchange is as stake. This presupposes the existence of a reputation mechanisms that disseminates information about bounced checks and bills. With such a mechanism in place, bills and post-dated checks can be discounted on the curb market or in formal banks (Biggs, 1993).

Part II. Empirical Results

We are now ready to analyze the results from two surveys conducted in Kenya under the auspices of the Regional Program for Enterprise Development (RPED) of the World Bank: a panel survey of 224 firms; and a case study survey of 58 firms. The panel survey sample is larger but the questions that were asked are more general. The case study survey had a smaller sample but firms were asked questions geared specifically to enterprise finance, trade credit, and contract enforcement issues. The number of observations to which a particular situation applies can be small, particularly in the case study survey. To save space, most survey results are discussed directly in the text and not presented in tabular form. The results presented in the tables often appear as percentages to facilitate their interpretation, but the reader should not be misled by their apparent precision: the number of cases on which they are based sometimes is very small. When discussing the results we strive to avoid over-interpreting them. We do not hesitate, however, to use the wealth of qualitative information that we gleaned during detailed case study interviews.

Part II is organized as follows. In Chapter 3 we briefly introduce the sample frame and discuss general firm characteristics. Chapter 4 describes firms' access to finance and use of various forms of credit. In particular, we examine how firms finance large investments and how they deal with cash flow problems. In Chapter 5 we delve into information issues and study how credit relationships are established and maintained and how contracts are enforced. Chapter 6 discusses the incidence of credit market imperfections on investment; it also presents a set of policy recommendations that emerge from our analysis.

Chapter 3. Survey Data and Firm Characteristics

Section 1. The Panel Survey

Sample Frame

This study is based upon two sets of primary data, the panel data and the case study data. The panel data come from a comprehensive questionnaire applied to 224 Kenyan manufacturing firms by a RPED research team in February-March 1993. To gain insight about firm dynamics two follow-up interviews are scheduled to take place at one year interval. The firms are drawn randomly from four sectors: food and food processing (52 firms), textiles and garments (57), wood and wood products (59), and, metal and metal products (54). The majority of the firms (143) are located in Nairobi, 39 are in Mombasa, 21 in Nakuru and 19 in Eldoret. The primary sample consists of 200 firms. The other 24 consist of 19 firms that were interviewed as part of the pilot survey, and 5 extra firms interviewed during the main survey to compensate for incomplete interviews. One fourth of the primary sample of firms consist of unregistered firms. The registered firms were selected from the Central Bureau of Statistics' register of firms which, although not fully up to date, formed the best available source. Registered firms were chosen randomly based on a stratification by three employment levels: 1-6, 7-79, and 80 and above. The sample frame for unregistered firms was based upon a primary (partial) listing of firms undertaken for all four cities.

Panel Firm Characteristics

Table 1 presents data on the average size and age of the 224 panel firms. Kenyan-African and Kenyan-Asian own the bulk of the firms interviewed. There is a strong correlation between firm size and ethnicity of the owner. Most of large and medium firms are owned by Kenyan-Asians; Kenyan-African dominate microenterprises. The average age of the firms is 17 years; the median is 15 years. The age of firms is also correlated with ethnicity: Kenyan-African businesses are 11.5 years old on average while Kenyan-Asian businesses are twice as old on average -- 22 years. Only 15 of the sampled firms are female owned, all of whom by Kenyan-Africans. Almost a third of respondents indicated that they own at least one other business in addition to the one they were asked about.

Half the firms in the sample had a limited liability status, one third are held in sole proprietorship, and one sixth in partnership. Four fifths of the firms are owned by private Kenyans. Another 16 percent are held partly or fully by foreigners. State-owned firms constituted only 2% of the sample. Almost 40% of the sampled firms have a title deed for their business premises. A third of them has a lease; the remaining firms rent their premises except for a small minority who squats. The distribution of title deeds and leases, both of which are collaterizable assets, varies according to firm size. 80% of the large firms have title deeds, with the rest holding leases. The corresponding figures for medium and small firms are 60% and 30% for title deeds and 20% and 45% for leases, respectively. Only a handful of microenterprises have title deeds or leases to their business premises. A little less than half of the firms import their raw materials directly. One fifth export but only seven percent of output is exported. Private end users represent more than half the firms' customers, private traders and trading firms another third. Public end users and trading agencies account for one sixth of the firms' market. Competition is mostly domestic.

Table 1. Size Distribution and Age of Panel Firms

	Micro firms	Small firms	Medium firms	Large firms
Kenyan-African	46	33	7	4
Kenyan-Asian	6	27	43	28
Other	1	7	7	15
Total	53	67	57	47
Mean age (in years)	11.0	18.4	21.1	24.1

Source: RPED Panel Survey.

Note: Size is defined in terms of employment: micro-firms, <5 employees, small firms, 5-29 employees, medium firms, 30-99 employees, large firms, >100 employees. Ethnicity is based on the ethnicity of the manager.

Section 2. The Case Study Survey

The panel survey was supplemented by a smaller, case study survey undertaken in September, 1993. The case study survey focuses on the more qualitative aspects of firms' financial transactions. A total of 58 firms were interviewed, of which 35 are manufacturing firms that also were in the panel

survey. The remainder are trading firms involved either in wholesale or retail trade in the four sectors targeted by the panel survey. In addition, two banks and three non-bank financial intermediaries (finance companies) were also interviewed. The 35 manufacturing firms part of the case study sample were chosen among the 143 panel firms located in Nairobi. Firms were drawn randomly from after stratifying by sector and firm size.[15] Four firms were chosen randomly from each cell leading to a group of 48 firms for the case study. The 35 firms actually interviewed were chosen from the set of 48 depending upon the availability of the entrepreneurs (some were not present during the survey), the willingness of respondents to accept another round of interviews, and the space-time constraints of field work. The traders interviewed were located primarily in the central business districts of Nairobi, including the River Road area, the Biashara Road area, and the Gikomba Market/Ukwala Road area. The selection of traders was based primarily upon their willingness to talk. As we have indicated earlier, many Kenyan firms are owned or managed by Kenyan-Asians and other people who are not ethnically African (e.g., Europeans, Arabs). When selecting the case study sample an effort was made to over-represent Kenyan-African firms so as to be able to contrast them with Kenyan-Asian. Table 2 below provides the firm size and owner ethnicity of the firms in the case study.

Table 2. Size and Ethnicity of Case Study Firms

	Firm Size				Sector of Activity			Total
	Micro firms	Small firms	Medium firms	Large firms	Manuf.	Whole-sale	Retail	
Kenyan-African	18	7	1	3	12	7	5	29
Kenyan-Asian	6	7	9	4	16	5	3	26
Other	2	1	0	0	4	1	1	3
Total	26	15	10	7	36	13	9	58

Source: RPED Case Study Survey

[15]The size classification used for this purpose was three tiered: small (<20 employees), medium (20-49 employees) and large (50 and above).

Chapter 4. The Use of Credit and Insurance

Relative to other economies in the sub-Saharan region, the formal financial sector supporting financial transactions of firms is well developed in Kenya. In addition to the apex institution, the Central Bank of Kenya, there are 27 banks and 55 non-bank financial intermediaries. Of these, five banks (Kenya Commercial, Barclays, Standard Chartered, National and Cooperative) have the largest market share while the non-bank intermediaries are dominated by four large firms (Kenya Commercial Finance, Housing Finance, Barclays Merchant Finance, and Diamond Trust and Investments and Mortgages). The formal financial sector also includes 13 active building societies, 61 insurance companies, 8 major development finance institutions, 1814 registered savings and credit societies, 207 hire purchase companies, a post office savings system and a stock exchange. Together with a vibrant network of informal intermediaries, the financial sector provides a diverse menu of financial instruments to firms for borrowing, saving, lending, and managing liquidity and risks.

Despite its relatively large size, however, the formal financial sector in Kenya is viewed as far from healthy. At least 11 banks and 20 non-bank financial intermediaries are estimated to be distressed, with grossly inadequate levels of paid-up capital, and with more than 25 percent of their loans deemed non-performing. Distressed institutions account for more than half the gross assets of the banking system. Poor management, weak institutional capabilities, substantial corruption and lax supervision by the central bank have been identified as significant problems characterizing the formal financial institutions. A more detailed discussion of the formal financial sector and its institutions is outside the purview of this study for two reasons. First, at least two recent studies have looked at these issues extensively, and the interested reader is referred to them.[16] Second, the unit of analysis in this study is the firm rather than the financial sector as a whole: the focus is on firm behavior in the environment created by the formal and informal institutions and regulations.

In this chapter we examine the use that firms make of various forms of long-term and short-term credit and formal insurance. Results from both RPED surveys, the panel survey and the case study survey, are combined. We start with banks and other formal sources of credit. Then we cover in detail credit to and from trading partners, that is, suppliers and customers. Informal finance comes next, followed by formal insurance. Then we analyze firms' access to credit and their need for flexibility. Distinct patterns of enterprise finance are summarized at the end.

Section 1. Banks and Formal Sources of Credit

In this section we examine the use of various bank services by sample firms. We begin with deposits in financial institutions, in particular checking and savings account. It has sometimes been argued that microenterprises get rationed out of formal credit because they are unfamiliar with banks. This is not the case in Kenya: the great majority of firms, including the smallests of them, hold one or more checking or savings accounts. Next we show that access to loans and overdraft facilities vary systematically with firm size. Results also indicate that overdraft facilities outweigh straight loans in enterprise credit, a probable reflection of the importance of working capital considerations in Kenyan manufacturing.

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[16] Aleem et al. (1993), World Bank (1992).

Deposits in Financial Institutions

Panel data

The great majority of surveyed panel firms make deposits in financial institutions (Table 1). Ninety percent of them hold financial accounts. 79 percent hold an average of 1.3 checking accounts that they have held for the last 16 years. 32 percent of the firms hold an average of 1.3 savings accounts that they have held for the last 11 years. Most Kenyan manufacturing firms are thus not decoupled from financial institutions. Small firms, however, are less likely to hold a checking account and more likely to hold a savings account than large and medium firms. Small firms use banks to store value not to facilitate business transactions through the use of checks. Large firms find more remunerative uses for their excess liquidity than bank saving accounts.

Table 1. Deposits in Banks and Shares in Other Firms

	All firms	Micro-firms	Small firms	Medium firms	Large firms
% of firms with a checking account	79%	50%	88%	100%	100%
% of firms with a savings account	32%	66%	41%	23%	16%
% of firms with a foreign exchange acount	10%	0%	6%	18%	18%
% of firms holding shares in other enterprises	19%	6%	25%	23%	20%
Number of firms	222	53	68	55	46

Source: RPED Panel Survey

Diversification of assets is practiced equally by all firm sizes except microenterprises: one fifth of the small, medium and large panel firms hold shares in other enterprises. Sophisticated financial instruments, however, are reserved for larger firms: at the time of the panel survey medium and large firms were more likely to hold foreign exchange certificates and foreign retention account; small firms held none. Foreign exchange certificates and retention accounts were cancelled in March 1993.

Most firms thus have a banking history. This assists them in getting access to formal finance because the banking history of loan applicants is used by banks as one source of information for screening. As we shall see, however, banking history seldom is the binding constraint behind the failure to get bank credit: collateral is.

Loans from Financial Institutions

Panel data

Less than half the panel firms (43 percent) ever received a formal loan (Table 2). A quarter of them were given at least one loan in the last year, mostly from banks. 42 percent received at least one loan in the last five years, also mostly from banks. The current combined balance of bank loans over all firms is equivalent to 9 percent of the value of annual sales. The current balance to non-banks is very small, and individual loans from non-bank institutions appear small as well. Microenterprises

and small firms are less likely to ever have received a formal loan than medium and large firms. Only two third of the large firms ever received a formal loan.

Table 2. Bank Loans

	All firms	Micro firms	Small firms	Medium firms	Large firms
% of firms that received a loan last year	15%	2%	13%	27%	20%
% of firms given a loan in last 5 years	28%	8%	22%	42%	43%
% of firms ever to receive a formal loan	43%	15%	30%	67%	65%
Number of firms	*220*	*52*	*68*	*55*	*46*

Source: RPED Panel Survey

One fourth of the panel respondents approached at least one other source of funding (Table 3). The length of acquaintance with the source of funding is 12 years on average with banks and 7 years on average with government funding agencies. The average time for approval is three months. The delay is longer for loans from government projects, and shorter for non-bank financial institutions. The disbursed amount per loan is equivalent to 15 percent of total average annual sales. Banks disburse amounts at least twice as large as other sources. The maturity of loans is two and a half years on average, shorter for non-bank financial institutions. Interest rates reported in the panel survey, undertaken in March 1993, turn around 19 percent. They are higher for non-bank financial institutions, lower for loans from government projects. Most loans are given on the basis of collateral. Bank rely heavily on land and buildings as real security. Government projects appear more willing to take equipment as security, but the number of observations is small. The average value of the collateral is well above the average amount disbursed.

Table 3. Characteristics of Formal Credit

	Banks	Non-banks	Govt.	Total
Access to loans:				
% of firms who approached another source of funding	18%	48%	22%	25%
Number of alternative sources approached	2.5	2.7	2.0	2.6
Length of acquaintance in months	147	106	83	131
Loan terms:				
Time to approval in months	3.3	2.6	3.8	3.2
Cash amount	11946	3548	2830	9266
Loan maturity in months	33	19	35	30
Interest rate	18.4%	21.1%	14.5%	18.6%
Collateral:				
% of loans with collateral	95%	86%	67%	91%
% of collateral represented by land and buildings	78%	37%	50%	67%
% of collateral represented by equipment	7%	16%	50%	11%
% of collateral represented by other assets	15%	47%	0%	22%
Average value of collateral	34701	22141	14746	30277
Number of observations	64	21	10	95

Source: RPED Panel survey.

21 percent of the firms applied for a loan in the year preceding the panel interview (Table 4). Of those, two thirds got their loan approved. Half the firms who did not apply last year said they did not need a loan. One fourth said they did not want to incur more debt or were already heavily indebted. 17 percent said they were rationed out by inadequate collateral or difficult procedures, or thought they would not qualify. Microenterprises are more likely to be credit constrained than other firms. They are unlikely to apply and were never granted a loan. Only 29 percent of the microenterprises declared they did not need a loan, but 36 percent thought they were rationed out or would not qualify. Many of them also said they did not want to incur debt -- probably, as we shall see, a consequence of their inability to handle strict repayment obligations. 56 percent of the panel firms never applied for a loan. Nearly half of them said they did not need a loan. 18 percent said they did not want to incur debt. 30 percent were rationed out by inadequate collateral, difficult procedures, or simply thought they did not qualify. High interest rates were cited by a handful of firms only. Microenterprises again are more credit constrained: only 29 percent of them said they did not apply because they did not need a loan; 44 percent declared they had inadequate collateral or did not qualify.

Table 4. Access to Formal Loans

	All firms	Micro firms	Small firms	Medium firms	Large firms
Loan application over the last year					
% of firms which applied for a loan	20%	8%	21%	27%	27%
% of those whose application was approved	66%	0%	43%	93%	83%
Reason for not applying last year					
Inadequate collateral or process too difficult	15%	28%	14%	8%	11%
Unwilling to incur debt / already in debt	22%	34%	6%	27%	25%
Interest rate too high	5%	2%	9%	8%	0%
Did not need a loan	48%	19%	66%	54%	54%
Would not get a loan	2%	6%	2%	0%	0%
Other	7%	11%	4%	3%	11%
Loan application ever					
% of firms that never applied for a loan	56%	83%	62%	33%	31%
Reason for never applying					
Inadequate collateral or process too difficult	25%	38%	20%	13%	0%
Unwilling to incur debt	18%	35%	8%	0%	20%
Interest rate too high	3%	0%	4%	13%	0%
Did not need a loan	45%	15%	62%	75%	60%
Would not get a loan	5%	8%	4%	0%	0%
Other	5%	4%	4%	0%	20%

Source: RPED Panel Survey

Bank overdrafts[17]

Panel data

Overdrafts are a useful instrument of short-term credit since, once established, they allow fast access to credit at negligible incremental transaction costs. Two third of the panel firms have at least one overdraft facility (Table 5). 13 of the 224 panel firms have more than one. Of the firms with

[17] An overdraft facility is an open line of credit. Firms can overdraw their current account up to their overdraft credit limit. Penalties are stipulated if funds are drawn beyond the limit. The overdraft contract may stipulate that the account must remain active and that the average balance must be maintained below the credit limit. Most respondents did not seem to care or to know about such contractual subtleties, however, and questions on contractual details were dropped from the questionnaire.

overdrafts, 82 percent hold a current negative balance. The average balance represent 19 percent of the value of annual sales, more than twice the average value of all outstanding loans. Slightly more than half the case study firms hold a bank overdraft but only one sixth are repaying a bank loan. Bank overdrafts thus constitute the biggest source of external finance to firms, exceeding bank loans, supplier credits and informal loans. Access to overdrafts is also clearly related to firm size: 90% of all large and medium firms have an overdraft, less than 60% of small firms do; only a handful of microenterprises have an overdraft. This reflects constraints similar to those that reduce access to bank loans by microenterprises, in particular the lack of collaterizable assets and the erratic character of their cash-flow.

Table 5. Bank Overdraft Facilities

	All firms	Micro firms	Small firms	Medium firms	Large firms
% of firms with overdraft facility	63%	13%	57%	91%	89%
Average current balance on overdraft	6816	84	894	1600	17113
Average current balance on loans from banks and financial institutions	3231	12	150	1022	13841
Number of firms	222	53	68	55	46

Source: RPED Panel Survey

Case study data

Additional questions were asked regarding overdraft facilities in the case study survey. Manufacturing firms are more likely to have a bank overdraft than trading firms. Non Kenyan-Africans twice more likely to have one than Kenyan-Africans. Probit analysis nevertheless indicates that only firm size has a significant effect on access to overdrafts in the sense that large firms are more likely to have one (Table 6). Firms in the textile and wood sectors are less likely to have an overdraft facility than those in the food and metal sectors.

Table 6. Probit Regression of Overdraft on Firm Characteristics *(significance level in italics)*

Log-lik. value	Const.	Ethnicity of manag.	Log. # workers	Manuf. dummy	Age of firm	Textile dummy	Wood dummy	Metal dummy
-23.112	-.310	-.037	.463	-.048	.025	-1.618	-1.443	-.212
.000	*.724*	*.943*	***.018***	*.930*	*.151*	***.033***	***.089***	*.798*

Source: RPED Case Study Survey -- 55 observations

Firms typically obtain an overdraft facility from a bank they have done business with for many years. Few of them bother to approach another bank because, firms say, they lack an account history with another bank and would be turned down. Only a few of the larger firms are able to shop around for rates and conditions. Another reason why small firms have little access to overdraft facilities is that they are less likely to do business by check and thereby to hold a checking account. To mitigate

constraints on access to overdrafts for microenterprises, one could envisage promoting the use of checking accounts.

The initial access to overdraft facilities requires one-time costs and conditions that differ across firms. Evidence suggests that the set-up costs may not be too high for firms that qualify for overdraft facilities. It takes on average five months for the overdraft application to be approved, but firms that cultivate a good personal relationship with their bank are able to secure the money in a shorter time. When the case study was done in September 1993, the average interest rate charged on overdrafts was 30 percent -- much higher than the rate reported for bank loans in March. This results from a rapid rise of Kenyan interest rates over the year. The relationship between interest rates and Kenyan macro-economic policies is discussed in Appendix.

Collateral requirements for overdraft facilities differ little from those required for bank loans. Half the overdraft facilities are guaranteed by business land or buildings, another third by personal land and buildings. Many firms had to offer personal guarantees in addition to firm assets. Stock debentures are often taken in conjunction with real assets. Personal property and real assets thus dominate the picture. The case study survey also reveals that a small number of firms managed to secure an overdraft without giving real security. One firm got an overdraft on the sole virtue of a large construction contract, another simply showed her stocks to the bank manager, a couple relied on the volume of their transactions with the bank, and another provided no security at all. These exceptions typically involved small overdrafts for which the bank manager appears to have taken the chance. A good personal relationship with the bank manager seems to have been a prerequisite.

Qualification for an overdraft facility requires a high level of collaterization. The total value of the collateral on average amounts to six times the line of credit; the median is 3.3. These figures are influenced by several factors. First, the value of Nairobi real estate has gone up rapidly in recent years. It will take some time before this value increase is reflected in overdraft limits. Second, many firms are said to undervalue their assets to avoid paying capital gains taxes. Since banks partly rely on the book value of assets to evaluate their collateral value, the undervaluation of assets reduces overdraft limits. Third, banks discount assets by a certain percentage. Nairobi land, for instance, only counts against collateral for 75 percent of its book value. Moveable assets count for even less. Fourth, the size of the overdraft is limited by the bank's estimate of the firm's need for working capital. All these factors combined help explain why the value of collateral is several time the overdraft limit. Banks are also often tempted to take all the security that is available, irrespective of the amount requested by the firm, and to propose a package deal loan-cum-overdraft. Firms that give all their possible collateral to their bank find it difficult if not impossible to raise funds from elsewhere and become *de facto* captive of their bank. Some respondents complained of this situation.

All overdrafts are formally renewed every year. A small but non-negligible number of firms experienced problems at renewal. The non-renewal of an overdraft facility was a prospect dreaded by all firms because it could put them out of business. One respondent hinted that his bank had objected to loans made by the firm to its manager and that he had started putting money aside to protect himself against the cancellation of his line of credit. Three-fourth of the firms tried to expand the size of their overdraft; a third of them experienced difficulties doing so. Firms use their overdraft facility overwhelmingly to finance working capital. A few, however, use it exclusively for emergency purposes. A couple firms used overdraft funds to purchase equipment, a practice their bank would probably object to.

When asked to compare overdrafts with bank loans, firms praised overdrafts for being cheaper and more flexible. Overdrafts are cheaper chiefly because interest is only charged on the amount used. Many respondents claimed interest *rates* on overdrafts are also lower, but they may have confused rates with charges. Overdrafts are more flexible than loans because no fixed repayment schedule is stipulated. In practice, bank loans often are offered in conjunction with an overdraft facility, the latter providing flexibility in the repayment of the former. Unlike loans, overdrafts also have no definite horizon, that is, unless renewal is denied.

Unlike many other sub-Saharan countries, banks in Kenya also offer bill discounting facilities, mostly to large firms. Although overdrafts and bill discounting facilities are distinct financial instruments, they are sometimes lumped together by the banks and the overdraft limit includes the bill discounting facility.[18] To set up a bill discounting facility, the firm and its bank negotiate the names of specific parties from whom bill can be discounted, and associated ceilings on the total value of bills that can be discounted from each party. A few of the rapidly growing number of finance companies offer bill discounting facilities to customers without associated overdrafts. In these cases, both the issuer and the presenter of the bill have to be known to the finance company. At the time of the case study, many firms reported low use of bill discounting facilities because of high discount rates.

Section 2. Credit to and from Trading Partners

Formal credit is but one aspect of enterprise finance. Another important dimension, too often ignored, is trade credit. It is true that the credit firms receive from their supplier is short-term: each individual loan is due after a few days or a few weeks. But supplier credit is constantly reniewed as firms place new orders. As a result, many respondents emphasized that supplier credit provides them with a more stable source of external funds than a bank loan that, as we just saw, typically has to be paid back within a couple of years.

The Use of Trade Credit

Panel data

Based on the panel data, tables 7 and 8 shows that the use of supplier and customer credit increases with firm size. Most large panel firms hold large supplier balances but microenterprises appear rationed out of supplier credit: the only source of trade credit they tap into is advances from clients. More than half the surveyed panel firms have a current balance *from* clients; one sixth have a balance *to* clients. On average, clients owe much more to firms than what firms owe to them. The contribution of supplier credit to panel firm finance is equivalent to 11 percent of the firm's value of annual sales, more than the average value of outstanding bank loans. Credit to clients represents on average 8 percent of the firm's value of annual sales. Panel firms on average are net recipients of trade credit: the credit they receive from suppliers exceeds the credit they grant to their clients. The net trade credit situation of firms varies with size, however. Microenterprises and large firms are net

[18]In the event a bill is not honored, the bank debits the account of the firm with the overdraft facility, thereby shifting all the risk onto its customer.

recipients of trade credit while small and medium firms are net suppliers of trade credit. On average, manufacturing firms in the textiles and metal sectors are net suppliers of trade credit; those in the food and wood products sectors have positive net trade credit.

Table 7. The Use of Trade Credit

% of firms with a balance:	All firms	Micro firms	Small firms	Medium firms	Large firms
Credit from suppliers	40%	6%	38%	54%	61%
Advances to suppliers	4%	0%	3%	2%	10%
Credit to customers	53%	12%	58%	69%	76%
Advances by customers	17%	24%	21%	11%	7%

Source: RPED Panel Survey

Table 8. The Importance of Trade Credit (in '000 K.Sh.)

	All firms	Micro firms	Small firms	Medium firms	Large firms
Credit from suppliers	4407	0	308	1077	19574
Advances to suppliers	250	0	0	19	1183
Credit to customers	3397	0	293	2131	13624
Advances by customers	70	1	7	83	229
Net trade credit	830	1	22	-990	4996

Source: RPED Panel Survey

The relative importance of trade credit by firm size and by sector is shown in Tables 9. For comparison, small firms in the U.S. are heavier users of trade credit than large firms but they are net givers of trade credit: the value of their accounts receivable exceeds that of their accounts payable. In Kenya, small firms also receive less credit than they give. But in contrast to the US, they are not heavy users of credit: large and medium firms rely on trade credit more than small or micro firms do. Although the average value of accounts payable as a percentage of annual sales are quite similar for small, medium and large enterprises, the median figures indicate that fewer small firms have non-zero balances than medium and large firms. The accounts receivables of large and medium firms also dominate those of small and micro firms, for the mean as well as the median. Across sectors, firms in textiles and garments show the highest level of trade credit activity, those in food and food processing the lowest. A possible explanation is that textiles firms have a large proportion of Kenyan-Asian entrepreneurs. The last two columns of Table 9 indeed make clear that Kenyan-Asian entrepreneurs are heavier users of trade credit than Kenyan-Africans.

Table 9. The Relative Importance of Trade Credit

outstanding balances as a % of total annual sales	Micro firms	Small firms	Medium firms	Large firms	Kenyan-African	Kenyan-Asian
Credit from suppliers	0%	6%	6%	7%	1%	7%
Advances to suppliers	0%	0%	0%	0%	0%	0%
Credit to customers	4%	11%	17%	15%	7%	14%
Advances by customers	5%	1%	1%	0%	3%	0%

Source: RPED Panel Survey

Pre-payment from customers to firms is significant in case of microenterprises: tailor shops, furniture workshops, and metal fabricators commonly seek advances to mitigate liquidity constraint and to guard against lack of commitment on the part of the customer. Pre-payment by firms to their suppliers, however, play no role in the finances of the Kenyan panel firms. This is in contrast to RPED findings in Ghana where pre-payments, both to suppliers and from customers, were significant items in firm finance. These issues are revisited at the end of Chapter 7.

Table 10 looks at the duration of trade credit for purchases and sales to private traders and end users. These two groups constitute the overwhelming majority of customers. Table 8 and 10 together show unambiguously that small firms are net providers of trade credit: their accounts receivable exceed their accounts payable, and they extend credit for periods at least as long as the duration of the credit they receive. Medium-sized firms, in contrast, also have receivables exceeding payables, but the median firm borrows for 60 days and lends for less than 45 days. Large manufacturing firms are net trade credit recipients: their accounts payable exceed receivables and the duration of credit received matches that of credit given.

Table 10. Duration of Trade Credit (median value in days)

% of firms with a balance:	Micro firms	Small firms	Medium firms	Large firms
Credit purchases	27	30	60	40
Sales to other firms and traders	-	45	33	45
Sales to private end-users	-	30	43	45

Source: RPED Panel Survey

Contractual Relations With Suppliers

Panel data

In order to understand trade credit practices, it is instructive to look at the relationship firms have with their suppliers and customers. Almost three quarters (72%) of all raw material suppliers to panel firms are private domestic firms. Only 16% of the panel firms import their raw materials directly. Markets for raw materials are not concentrated: only 12-13% of the suppliers have a *de facto*

monopoly on a particular raw material. Yet, the mean length of relationship between firms in the panel sample and their primary suppliers is 8.9 years. Main suppliers provide, on average, two thirds of the supply of a particular raw material. The implication is that firms typically seek a stable relationship with their main suppliers. For obvious strategic reasons, firms purchase their most important raw material(s) not just from one supplier but from a small group. Buying from more than one supplier guarantees access to several sources of supply in case the raw material is scarce, and it prevents any individual supplier from knowing exactly the output and profits of the firm.

Most supplies are paid cash, forty percent with supplier credit. Advance payments are rare. There is some intersectoral variation: the lowest proportion of purchases on credit is in food processing while the textile sector has almost 50% of the suppliers selling on credit. The variation across firm sizes is large: 55% of the large and medium firms purchase their most important raw material on credit. The corresponding figures are 35% for small firms and 8% only for microenterprises. Only 18% of Kenyan-African firms purchase raw material from major suppliers on credit, against 51% for Kenyan-Asian firms.

Table 11. Form of Payment to Suppliers

	All firms	Micro firms	Small firms	Medium firms	Large firms
Credit	39%	10%	33%	51%	56%
Cash	59%	88%	65%	49%	36%
Advance payment	2%	2%	2%	1%	8%

Source: RPED Panel Survey

Case study data

A similar but more detailed picture emerges from the case study data (Table 12). Case study firms have on average 15 regular suppliers, two-third of whom extend trade credit. One sixth of the case study firms pay occasional advances to suppliers. The absolute number of regular suppliers to Kenyan-African firms is considerably smaller than that for non Kenyan-African firms. Although the number of regular suppliers increases with firm size, Kenyan-African firms have on average fewer regular suppliers than even small firms. The proportion of suppliers who extend trade credit also varies dramatically with the ethnicity of the firm's owner: 39% of the regular suppliers to Kenyan-African entrepreneurs provided credit, against 74% for non Kenyan-African entrepreneurs. The two results are related: Kenyan-African firms, because they are less likely to qualify for trade credit, are also less likely to rely on regular suppliers. Instead they shop around for the lowest cash price.

Table 12. Supplier Credit in the Case Study

	All firms	Manuf firms	Trade firms	Kenyan-African	Kenyan-Asian
number of regular suppliers	15	12	20	6	21

% of suppliers giving credit	60%	56%	65%	39%	73%
% of purchases on credit	42%	37%	51%	21%	58%
Number of observations	*56*	*33*	*23*	*23*	*33*

Source: RPED Case Study Survey

A Tobit regression confirms that firm size has no significant effect on the proportion of suppliers who give credit, but Kenyan-African firms get credit from a significantly smaller proportion of their suppliers (Table 13). Firms in manufacturing get less credit, firms in the textile and wood sectors get more. On average firms buy 42% of their supplies on credit. Another Tobit regression confirms that Kenyan-African buy significantly less on trade credit, even after controlling for firm size and sector of activity (Table 14). Large firms buy proportionally more on credit but the effect is only marginally significant. The use of supplier credit is less prevalent in the food sector and among manufacturing firms.

Table 13. Tobit Regression of Proportion of Suppliers Giving Credit
(significance level in italics)

Log-lik. value	Const.	Ethnicity of manag.	Log. # workers	Manuf. dummy	Age of firm	Textile dummy	Wood dummy	Metal dummy
-45.948	.743	-.932	.087	-.655	-.005	1.041	1.146	.443
	.233	***.016***	*.508*	*.074*	*.623*	***.019***	***.018***	*.323*

Source: RPED Case Study Survey -- 52 observations

Table 14. Tobit Regression of Proportion of Purchases on Credit
(significance level in italics)

Log-lik. value	Const.	Ethnicity of manag.	Log. # workers	Manuf. dummy	Age of firm	Textile dummy	Wood dummy	Metal dummy
-35.919	.025	-.534	.098	-.276	.003	.861	.545	.437
	.926	***.001***	*.096*	*.074*	*.459*	***.000***	***.011***	***.037***

Source: RPED Case Study Survey -- 54 observations

In contrast to the industrialized economies, trade credit contracts in Kenya show little standardization. In virtually all cases trade credit recipients are given a specific payment deadline. The average repayment term in March was 58 days, and the average elapsed time between delivery and full payment was 54 days. In September, it had fallen to one month on average. The payment deadline is shorter for small firms and for trading firms; it is longer for large firms and manufacturing firms. Non Kenyan-African firms enjoy a payment deadline on average three times as long as Kenyan-African firms. The most recent purchase on credit made by panel firms is typically paid in full at the end of the credit period. Little is paid on order or delivery. The average value of the most recent cash

purchase made by panel firms is about one fourth of the value of the most recent purchase on credit. One fifth of the panel firms declare receiving a cash discount of seven percent on average. Only a handful of purchases are made with advance payment. They concern very large purchases and most of the payment is made on order.

Very few firms pay an explicit interest charge on credit purchases. Out of 74 fully recorded supplier credit transactions in the panel survey, 41 involved no cash discount, and 33 an average 5.7 percent discount. The average cash discount at the time of the panel survey was thus 2.5 %. This corresponded to an implicit yearly interest rate of 18 %, a rate that compares well to the reported average interest rate of 19% charged on bank loans in March 1993. During the case study survey conducted in September of that year, the average cash discounts received by case study firms was similar -- 2.8% on average -- but the credit length had shortened. The corresponding implicit yearly interest rate had jumped to 36%, a figure only slightly above the average interest rate paid on overdraft facilities at the time. There is, however, a lot of variation in implicit interest rates across firms and suppliers. No cash discount remains the norm.

Half of the trade credit recipients occasionally pay by flexible installment, but usually they pay their debts all at once. Insufficient cash is the most cited reason for buying on credit. A quarter of case study firms also point out that, when their supplier does not give cash discounts, it is cheaper for them to buy on credit. A few firms also mentioned that they were reluctant to settle large sums of money on a cash basis because of the risk of theft and misappropriation. For them payment by check is a way to increase the security of transactions. Once firms trust each other enough to settle their accounts by check, trade credit is a natural extension.

Contractual Relations With Clients

Panel data

Panel firms, all in manufacturing, make 55 percent of their sales to private end users, and another 35 percent to private traders or trading firms (Table 15). Public retailers/wholesalers constitute a negligible customer base for the firms in the sample but public-sector companies are significant end users of their products. Public firms in total account for less than 10 percent of sales. There exists considerable variation in the pattern of sales across different firm sizes At least half the output of medium and large firms is sold to private wholesalers or retailers. In contrast, microenterprises sell 85% of their output to private end users. Moreover, in the case of larger firms, private end users include large institutional customers (e.g., hotels), few of which would ever buy from microenterprises. A typical large or medium manufacturer is thus situated in the product chain between an importer/wholesaler of raw materials and a wholesaler/retailer or a large end user of its product. A microenterprise, in contrast, is typically situated between a wholesaler/retailer and an individual consumer.

Table 15. The Composition of Sales by Type of Customer

% of total sales	Micro firms	Small firms	Medium firms	Large firms	Kenyan-African	Kenyan-Asian
Private end-user	85%	64%	40%	30%	73%	44%

Public end-user	2%	8%	6%	10%	5%	6%
Private retailer/wholesaler	13%	25%	50%	55%	21%	45%
Other	0%	3%	4%	5%	1%	4%

Source: RPED Panel Survey

The form of payment received from clients varies systematically with the value of the transaction: the average value of the most recent cash sale is about four times smaller than that of the most recent credit sale. It also varies with firm size (Table 16): Microenterprises make less than one sixth of all their sales on credit, compared to 45 percent and 58 percent for medium and large firms respectively. At the same time, they make one fourth of their total sales with advance payment, compared to 10 and 8 percent with medium and large firms. This is related to the type of clients that firms of different sizes sell to: cash sales and advance payment sales are much more frequent with private end users than with traders or public firms. Final users of the goods, like individual consumers or manufacturers, account only for a quarter of the credit recipients among panel firms. Most of the credit goes to trading firms, wholesale and retail. Most of the sales to public firms or traders occur on credit. Institutional customers like schools and hotels also buy large quantities on credit. Most cash sales take place with private end users. Small panel firms are particularly unlikely to sell on credit to the private end users or traders who buy from them; medium and large firms less so. The main function of trade credit thus appears to be to finance traders' storage cost, less so to provide working capital to other manufacturing firms. The idea is, in the words of some of the respondents, 'to put your goods on the shelves of the shops'. If they are not physically present in the shops, nobody will buy them. Delays in payment is also more acceptable for slow moving items. Trade credit therefore present similarities with consignment contracts: the supplier is implicitly treating his customer as an agent to sell his products, and he is willing to share in the costs and risks of selling.

Table 16. Form of Payment from Clients

	All firms	Micro firms	Small firms	Medium firms	Large firms
Credit	41%	4%	35%	53%	64%
Cash	45%	72%	47%	39%	31%
Advance payment	14%	24%	19%	7%	4%

Source: RPED Panel Survey

Forty to sixty percent of credit sales are paid in installments. End users are more likely to pay a little something at order or delivery than traders. But for all client categories, the bulk of the payment is made at the end of the payment period. The time elapsed between delivery and full payment was 55 days on average in March 1993. It was shorter for private clients than for public end users who take on average three times more time to repay. (The average payment term for credit sales reported by case study firms in September 1993 was only slightly shorter, 47 days, but the mode had

dropped to 30 days.) In the case of sales with advance payment, payment by installment was mentioned by three panel firms only, but in all but a couple of cases respondents indicated that they received significant partial payments of over a third of the value of the sale at order and delivery. The time elapsed between first payment and delivery was three weeks on average. Explicit cash discounts to clients are infrequent. When asked about cash sales, one fourth of the panel firms declared giving a cash discount of 10 percent on average (the median is 5 percent). When asked about credit sales, only 6 panel firms declared charging an explicit interest charge of 5 percent on average. Regarding advance payments, two panel respondents used an explicit interest rate of 5 percent. In contrast with formal lenders, trade creditors hardly rely on collateral to guaranty repayment: physical collateral and third party guarantor were used only by 9 panel firms. 15 mention signed invoices as a partial guarantee. The use of written contracts or documents was more likely with public clients and less likely with private traders.

Case study data

Two-thirds of the case study firms give credit to some of their customers, but only a quarter of their sales is on credit (Table 17). A Probit regression conducted on the case study sample indicates that Kenyan-Africans are significantly less likely to give credit to their customers (Table 18). Firm size has the right sign but is not significant. The few Kenyan-African firms who give credit to their customers also differ from their non Kenyan-African counterparts in terms of the proportion of sales they make on credit.

Table 17. Customer Credit in the Case Study

	All firms	Manuf firms	Trade firms	Kenyan-African	Kenyan-Asian
% of firms giving credit	68%	77%	55%	44%	85%
Number of observations	*57*	*35*	*22*	*23*	*29*
% of sales on credit for those selling on credit	26%	28%	24%	9%	37%
Number of observations	*28*	*16*	*12*	*11*	*17*

Source: RPED Case Study Survey

Table 18. Probit Regression of Whether Firm Gives Credit to Clients or Not
(significance level in italics)

Log-lik. value	Const.	Ethnicity of manag.	Log. # workers	Manuf. dummy	Age of firm	Textile dummy	Wood dummy	Metal dummy
-25.316	.329	-.976	.312	.151	-.005	.280	-.095	-.327
.028	*.715*	***.041***	*.163*	*.740*	*.715*	*.671*	*.893*	*.618*

Source: RPED Case Study Survey -- 54 observations

Case study firms were asked why they give credit to certain customers. The major reason they gave is that clients cannot pay cash and ask for credit. A few respondents gave a more sophisticated answer, however. Some use credit to retain big customers and maintain good relationships with them. In a world where trade credit is only given to a few trustworthy customers, firms find it difficult to buy supplies on credit from suppliers they have never dealt with. Firms therefore become somewhat 'captive' of suppliers who give them credit. Captivity is what makes trade credit possible through the establishment of relation-specific social capital, but it may also have some efficiency costs. A fifth of the firms cite competition with others as a reason for offering credit. Offering advantageous credit terms is one way by which firms compete for goods customers. The chief reason for *not* giving credit to customers is the risk of non-payment. In other words, the inability to costlessly and perfectly enforce contracts is what limits firms' willingness to extend credit to their customers. Lack of funds is also cited, but less frequently.

To pursue this point further, case study respondent were quizzed about repayment guarantees. These discussions reveal an implicit hierarchy of available payment forms: all customers may purchase on a cash basis, a more select group is allowed to pay by check, and an even more select group receives trade credit. Within the trade credit category itself, a hierarchy of instruments is used. Bills of exchange are used to signal minimum flexibility and indicate a relative lack of trust. Few firms like to sign bills. Postdated checks perform a function similar to that of bills.[19] More privileged customers are only asked to sign the supplier's invoice. At the top of the hierarchy trade credit is unmediated by any written or legally binding instrument. These issues are revisited in the following chapter.

Section 3. Informal Finance

We now investigate the role that so-called informal finance plays in Kenya. Two types of financial contracts are the object of our attention: deposits and contributions to rotating credit and savings associations (ROSCAs);[20] and loans to and from friends and relatives. Results show ROSCAs to play little or no role in enterprise finance in Kenya. Informal loans between friends and relatives are rare but they represent a crucial form of insurance against large liquidity shocks.

Deposits and Contributions in Informal Groups

Panel data

Out of 224 panel firms, only 19 make deposits in informal groups, 15 of them microenterprises. None makes deposits with susu collectors. The median length of participation to informal groups is 2 years, the median number of members is 25. The median frequency of contribution is once a month. Funds are allocated in rotating order. The average contribution is microscopic: less than a thousand shillings or $30; the median contribution, 200 shillings, is even

[19]Bills are nevertheless less flexible from the point of view of the debtor. They are collected at the due date directly by the bank. Payment collection is thus largely out of the hands of the creditor, unless he intercedes with the bank to delay collection. Checks, however, are not discounted by banks; bills are.

[20]See van den Brink and Chavas (1991) for a theoretical discussion of ROSCAs in Africa.

smaller. ROSCAs thus appear to play little role in Kenyan enterprise finance, even among micro-enterprises. This finding is in contrast with the view held by some that rotating credit constitute the bulk of informal finance in Africa, not just for consumption purposes but also for productive investment in manufacturing. The results from this survey, as well as those from our previous work in Ghana, do not bear this out.

Informal Lending and Borrowing

Panel data

Informal borrowing and lending show limited magnitudes in the panel sample. One sixth of the panel firms borrowed from informal sources in the three years preceding the survey (Table 19). Only 6 percent did so in 1992. Most of these loans were from relatives and friends. Outstanding balances are small -- less than 2.5 percent of the value of annual sales. Small and medium firms are slightly more likely to borrow informally, but the value of small firms' outstanding balances is much smaller than that of medium and large firms. Informal loans were typically made for three months. Only one was made with collateral. Firms used informal sources mostly because of easier formalities. The lender was known by the firm for 20 years on average (the median is 20 years as well). The possibility of legal action was cited by 2 respondents only. Others cited extension of term, debt forgiveness or persistent requests for payment as the most likely sanctions for non-repayment.

Table 19. The Use of Informal Borrowing

	All firms	Micro firms	Small firms	Medium firms	Large firms
% of firms that borrowed in last 3 years	15%	19%	16%	17%	5%
Reason for borrowing from informal source:					
More favorable interest rate	13%	11%	18%	11%	0%
Easier formalities	58%	67%	55%	67%	0%
No collateral required	13%	22%	9%	0%	0%
Other	16%	0%	18%	11%	100%
Number of firms	*222*	*53*	*68*	*55*	*46*

Source: RPED Panel Survey

The average number of informal loans given by the firm is high, but it is driven by a few very large responses (Table 20). Except for one loan to another firm, the average current positive balance for all these loans is small with a maximum of KShs 50,000. The duration of the loans is short, less than 3 months. The primary recipients of informal loans given by panel firms are employees, friends, and family members. 42 percent of panel firms give loans to their employees but only a few report informal loans to people other than their employees. There does not seem to be a relationship between

firm size and the practice of informal lending, except that the balance of outstanding loans to employees is larger for firms employing more people.

Table 20. The Use of Informal Lending

% of firms giving loans to:	All firms	Micro firms	Small firms	Medium firms	Large firms
Relatives and friends	3%	4%	7%	0%	0%
Suppliers and clients (distinct from trade credit)	3%	2%	2%	2%	3%
Employees	43%	17%	61%	62%	38%
Other enterprises	2%	4%	0%	0%	3%

Source: RPED Panel Survey

This picture, however, fails to recognize the importance of informal finance as a source of insurance against liquidity shocks. Many case study firms insist that they could borrow from friends if they needed to. Even though they seldom use this possibility, knowing that funds could be found if needed provides a much appreciated security. The role of informal finance as a form of insurance is a focus of the rest of this report.

Section 4. Formal Business Insurance

Case study data

To complete the picture, we also enquired about formal insurance. Case study firms were asked about the business insurance policies they currently hold. Four fifths of them hold at least one business insurance policy. The proportions vary dramatically by ethnic origin of the owner, however: all non Kenyan-African firms are insured, two third of the Kenyan-African firms are not. Small firms are less likely to be insured that medium and large firms. In terms of coverage, most insured firms are insured against fire and burglary. Many firms also cited workers' compensation and insurance for goods and cash in transit. Only a couple firms are covered for contract compliance and loss of profit. Large firms tend to have a more comprehensive insurance coverage than small firms.

Formal insurance, however, does not provide complete protection against all the types of risk firms are exposed to. Insurance payments take weeks if not months to come, leaving firms with a temporary liquidity problem. No formal insurance is available against small temporary business shocks, like fluctuations in market demand for the firm's products, delayed payments by customers, equipment breakdowns, etc. Exchange rate fluctuations are perhaps the single most important source of price risk affecting manufacturing. Forward currency transactions used to give firms a limited degree of protection against such risk. As a result of repeated government interventions on the foreign exchange market, however, forward currency transactions were not offered by banks at the time of the case study survey. As we shall see in the following section, firms make extensive use of

bank overdrafts, trade credit arrangements, and informal loans to cope with their exposure to uninsured risks.

Section 5. Access to Credit and the Need for Flexibility

Having described the use and importance of various types of financial and insurance contracts involving Kenyan firms, we examine how the same firms deal with their financial needs. The financing of start-up capital is reviewed first. Next we look at the purchase of new equipment and machinery by existing firms. Finally, we take a closer look at liquidity management and investigate to what extent firms rely on credit to deal with liquidity shocks.

Sources of Start-Up Capital

Panel data

Owners of panel firms were asked how they started their enterprise. The majority of panel firms (73%) are owner-established businesses; only 23 firms were inherited. 19 businesses had been bought by the current owner(s). Own savings constitute the most important source of start-up capital, followed by loans from local banks (Table 21). The use of bank loans is correlated with firm size: larger firms have a higher proportion of start-up capital financed by bank debt. Foreign banks, moneylenders, and supplier credit are negligible sources of start-up finance across all firm sizes. Loans from friends or family are significant sources of start-up capital for microenterprises and to a lesser extent for small firms. Discussions with respondents suggest that such loans share many of the features of venture capital investment in developed countries: repayment involves a grace preriod and is contingent on success. Lenders may also provide advice and other forms of support. This issue will receive more attention in future case studies.

Table 21. Sources of Start-Up Capital

	Micro firms	Small firms	Medium firms	Large firms
Personal savings	78%	71%	69%	43%
Loan from friends and relatives	9%	6%	3%	1%
Loan from Kenyan bank	2%	14%	20%	28%
Credit from equipment supplier	3%	1%	0%	1%
Loan from moneylender	0%	2%	0%	1%
Other (includes loan from foreign bank)	2%	8%	8%	26%

Source: RPED Panel Survey

Purchases of Land, Buildings and Equipment

Panel data

Most firms incur lumpy expenditures in one form or another. For manufacturing firms it is typically a piece of equipment; for trading firms, a vehicle. Retained earnings and commercial bank loans are the dominant source of finance (Table 22). Six percent of the panel firms (13 firms) declared a recent land acquisition, most of it on lease. 7 firms financed their purchase using retained earnings, 8 used bank loans, and only two firms used an informal loan from friends and family or a moneylender. On average, 41% of the amount was financed from retained earnings and 44% from bank loans. Seventeen panel firms declared the recent purchase of a building, mostly financed from retained earnings and personal savings, and by bank loans. Eleven firms reported utilizing retained earnings and nine utilized bank loans. On average, 45% the value was financed from retained earnings and 38% from bank loans. Personal savings were also significant as source of funds while informal loans were negligible in importance.

Table 22. Sources of Funds for Investment

	Land	Building	Equipment				
	All firms	All firms	All firms	Micro firms	Small firms	Medium firms	Large firms
Retained earnings	41%	45%	62%	53%	64%	63%	64%
Personal savings	8%	10%	10%	28%	12%	0%	0%
Loan from friends and relatives	4%	2%	2%	0%	3%	2%	0%
Loan from Kenyan bank	44%	38%	16%	1%	14%	25%	23%
Credit from equipment supplier	n.a.	n.a.	4%	12%	2%	2%	2%
Loan from moneylender	4%	0%	0%	0%	0%	0%	0%
Other (includes loan from foreign bank)	0%	6%	7%	6%	4%	8%	10%

Source: RPED Panel Survey

Ninety percent of the panel firms reported a recent acquisition of equipment. The median date of the latest purchase is 1990. The mean value of total investment expenditure by firms in 1992 equaled 7-11% of the replacement value of the firm's total equipment/machinery. The average value of the most recent capital acquisition ranges from 15% (for medium firms) to 37% (for small firms) of the average total investment expenditure in 1992. The picture that emerges from the panel survey is one in which internal financing and commercial bank loans constitute the most important sources of finance for the long-term credit needs of firms. Medium and large firms have greater access to bank credit. This reflects the distribution of collaterizable assets, primarily land, across firms of different sizes, and the lower transaction costs to banks for evaluating creditworthiness of large firms. Retained earnings are the dominant source of financing acquisition of equipment/machinery across all firm sizes

(Table 22). Seventy two percent of the funds used to purchase the equipment come from retained earnings and personal savings, seventeen percent from bank loans. For large and medium firms, bank loans are important, unlike for microenterprises and small firms which have to compensate with own savings. Six firms borrowed from friends and relatives, seven got credit from the supplier of the equipment. Surprisingly, supplier credit is a significant source of finance for microenterprises and not for any of the larger firms. This last result should be interpreted with caution, however. It is in contrast with a former World Bank study (1992) on finance in Kenya which indicates that the proportion of investment financed with supplier credit is three times more important for large firms than for small ones. It may be due to the way the question was phrased: respondents were asked how they financed *purchases* of equipment. Many of them, however, particularly among medium and large firms, lease equipment, as the following table shows.

Table 23. The Use of Leasing

	All firms	Micro firms	Small firms	Medium firms	Large firms
% of firms that have ever leased equipment	27%	17%	27%	30%	32%

Source: RPED Panel Survey

Case study data

Case study firms were asked more specific questions about the financing of lumpy investments. They declare an average time between capital purchases of three and a half years. Half the case study respondents are confident they could certainly find the money if they needed to, but the rest is less optimistic. One sixth of the firms respond they could not find the funds. The expected length of time to secure the funds is four months. Eighty percent of the firms needed or wanted to borrow at least once. Manufacturing firms tend to require more credit than others, but otherwise there are few differences between firm categories in their desire to borrow. Virtually all firms know who they would approach if the need arose. But only sixty percent are always successful in securing the needed funds (Table 24).

Table 24. Access to Credit for Investment by Firm Type

	All firms	Manufact. firms	Trading firms	Kenyan-African	Kenyan-Asian
% of firms that ever wanted to borrow	83%	90%	67%	86%	82%
% of firms that were always able to borrow	58%	57%	63%	17%	79%
Possible sources of funds cited by firms: (multiple answers were allowed)					
Personal savings	80%	74%	100%	88%	77%
Formal credit	78%	88%	42%	31%	100%

Leasing	41%	38%	50%	25%	50%
Personal loan	17%	15%	25%	19%	17%
Number of firms	*46*	*34*	*12*	*16*	*30*

Source: RPED Case Study Survey

A Probit analysis confirms that Kenyan-Africans are significantly less likely to be able to borrow for investment purposes than non Kenyan-Africans; none of the other variables, including firm size, is significant (Table 25).

Table 25. Probit Regression of Whether Firm Aways Able to Borrow for Investment
(significance level in italics)

Log-lik. value	Const.	Ethnicity of manag.	Log. # workers	Manuf. dummy	Age of firm	Textile dummy	Wood dummy	Metal dummy
-10.587	7.691	-2.783	.006	-.402	-.025	-6.970	-5.058	-5.604
.001	*.868*	*.006*	*.981*	*.738*	*.378*	*.880*	*.913*	*.903*

Source: RPED Case Study Survey -- 37 observations

As in the panel survey, strategies for securing funds overwhelmingly rely on retained earnings and personal savings (Table 24). Bank finance comes second, mostly in the form of a loan, occasionally in the form of an overdraft, in several cases from a finance company. A fourth of the 46 respondents also regard a growing number of hire-purchase companies as an important source of credit.[21] Currently hire-purchase applies to the financing of vehicles, usually with loans of up to three years at rates slightly above bank lending rates. Over time, hire-purchase companies may expand their activities to incorporate machinery and equipment. Loans from other sources are seldom cited. With respect to bank financing, the number of firms likely to use an existing overdraft to finance equipment acquisition is the same as those who would seek a new bank loan. Thus, at least for relatively small investments, loans are not the only conduit for channeling bank credit. Loans from banks and financial institutions are mentioned most often by manufacturers, hire-purchase by traders. Non Kenyan-African firms cite on average more potential sources of funds than Kenyan-African firms. They are also much more likely to mention bank loans and hire-purchase as potential sources of credit. A similar pattern is again discernable between firms of different sizes.

[21]Hire-purchase is the Kenyan term for leasehold agreement. The seller retains the ownership of the good until all monthly payments have been made. The hire-purchase contract is typically organized by the supplier of the equipment or vehicle but the funds are supplied by a financial institution.

Liquidity Constraints

Case study data

As was discussed earlier, some financial needs of firms are short-term in nature, closely related to their manufacturing and/or marketing cycle, in the form of working capital requirements. In addition, firms also need short-term credit when exposed to certain types of unanticipated, temporary shocks to their liquidity. One can identify three types of instruments and arrangements that are utilized by firms for financing such credit needs, namely, bank overdrafts and bill discounting, trade credit, and informal loans. The first two are used extensively in industrialized countries as well, while informal loans are more common in economies with dualistic financial sectors.

Case study firms were asked about the liquidity constraints they face. Most answered that they face liquidity constraints or cash flow crises at one time or another. The average number of occurrences per year is two. Manufacturing firms tend to encounter liquidity problems more often than trading firms. Again Kenyan-African firms appear at a disadvantage, with about half of them frequently facing liquidity problems against one fourth of the non Kenyan-African firms (Table 26). Two-third of the firms are confident that they could find the funds to deal with the situation. Only a couple firms worried that they could not find the money at all. Two-third of the firms ever needed to borrow, and two-third of them could find a lender. Kenyan-African businesses are again at a disadvantage in terms of access to credit. Although a similar pattern exists across firm sizes, with small firms less likely to be able to borrow, it is not as marked as between ethnic groups.

Table 26. Access to Credit for Cash-Flow Management by Firm Type

	All firms	Manuf firms	Trade firms	Kenyan-African	Kenyan-Asian
% of firms that ever wanted to borrow	69%	74%	62%	81%	62%
% of firms that were always able to borrow	68%	64%	77%	41%	91%
Possible sources of funds cited by firms: (multiple answers were allowed)					
Personal savings	30%	29%	33%	62%	23%
Formal credit	59%	69%	43%	33%	71%
Delay payment	63%	66%	57%	33%	80%
Personal loan	46%	43%	52%	48%	46%
Sell faster	21%	14%	33%	29%	17%
Number of firms	56	35	21	21	35

Source: RPED Case Study Survey

A Probit regressions confirms that ethnicity alone has a significant effect on the ability to borrow when faced with liquidity problems (Table 27). Firm size has the expected sign but is not

significant; sample size is small, however. Older firms are more likely to be able to borrow for liquidity crises.

Table 27. Probit Regression of Whether Firm Aways Able to Borrow for Liquidity
(significance level in italics)

Log-lik. value	Const.	Ethnicity of manag.	Log. # workers	Manuf. dummy	Age of firm	Textile dummy	Wood dummy	Metal dummy
-13.633	1.986	-1.807	-.331	-.666	.082	-.469	-.612	-.463
.017	*.112*	***.008***	*.192*	*.370*	***.059***	*.623*	*.560*	*.643*

Source: RPED Case Study Survey -- 36 observations

The most often cited strategy to deal with liquidity crises is to delay payment to suppliers and to speed up payment from customers. Of course only firms that receive credit from suppliers and offer credit to customers can use that strategy. This in itself penalizes Kenyan-African businesses because they receive trade credit less often. The second most important strategy is to request help from the bank, typically in the form of a temporary extension of the overdraft limit. A few respondents indicated that they could call up their bank and ask them to 'sit' on one of their checks or bills for a couple of days. In these cases the bank acts as the firm's accomplice in delaying payment to creditors. Borrowing from friends and relatives and other informal lenders comes next. It is the source of external funds most often cited by Kenyan-African businesses. Own funds in the forms of savings or alternative sources of income are the most often cited source of relief for Kenyan-African businesses. A third of them also mention reducing their margin to sell faster and stopping purchases of new goods, thereby hurting their business.

Summary: Credit Flows, Ethnicity, and Firm Size

Credit Flows

The average contribution or drain that various sources of funds represent for enterprise finance is as follows, measured in percent of the value of total annual sales: bank overdrafts 19 percent, bank loans 9 percent, supplier credit 11 percent, client credit -8 percent, and informal borrowing 2 percent. Overdrafts are therefore the most important source of enterprise finance in Kenya; they represent twice the net contribution made by bank loans. The net contribution of trade credit is small -- 3 percent of annual sales -- but supplier credit alone contributes more to firm finance than bank loans. The contribution of hire-purchase to firm finance is underestimated by a conventional approach to firm finance.

The data suggests a well defined pattern of credit flows that can be summarize as follows. Trade credit normally flows downstream, that is, from supplier to customer. For example, textile manufacturers give credit to textile wholesalers, who give credit to garment manufacturers, who give credit to garment wholesalers, who give credit to garment retailers. Downstream flows of trade credit are 'irrigated' at various levels by overdraft facilities. To the extent that large upstream firms have

access to bank finance, the constant and forever renewed flow of trade credit down the manufacturing chain is not decoupled from financial credit. Rather, trade credit intermediates flows of funds supplied by banks so that small and medium size firms who have insufficient direct access to bank credit get it indirectly through their suppliers. Certain firms, particularly micro-enterprises, receive little or no credit from their suppliers. Since small firms are also more likely to be rationed out of formal finance, they are cut from direct and indirect access to bank credit. In their case, intermediation fails. Supplier credit is replaced by advances from customers to finance firms' need for working capital. Credit flows are reversed.

Informal borrowing is infrequent and quantitatively small but its importance as insurance against cash flow shocks should not be underestimated. The ability to raise instant cash by calling upon informal sources of finance is often a crucial factor in a firm's ability to survive liquidity problems and to take advantage of good deals. ROSCAs are virtually nonexistent among Kenyan manufacturing firms. Although not all firms get bank credit, virtually all of them have a checking or savings account. Large firms are more likely to have a checking account, small firms a savings account. This is consistent with poor accessibility to instant cash for small firms and explains the role of accumulated cash and other forms of buffer funds as insurance against liquidity shocks.

Firm Size, Ethnicity and Finance

Based on the data presented so far, there are strong grounds to suspect that microenterprises are credit rationed. Less than 8% of the microenterprises in the panel survey had applied for bank loans in 1992. Of the 83% that had never applied for a bank loan, almost half blamed it on lack of collateral and perceived procedural difficulties. 90% of the microenterprises did not have access to overdraft facilities. Moreover, supplier credit is virtually non-existent for them; customer advances are more important than credit from suppliers of raw materials. This is not to say that there is a complete absence of informal credit transactions at the microenterprise level. Some microenterprises occasionally purchase a few inputs on credit, particularly from salesmen wanting to expand their market. Although in kind credit arrangements were not picked up in the surveys because they were discovered too late, microenterprises seem to be actively involved in the practice of loans in kind whereby inputs used in production (e.g., finishing goods like furniture polish and varnish) are 'lent' between microenterprises. The credit arrangements opened to microenterprises allow a modicum of flexibility to otherwise credit constrained firms. But they remain elementary and limited in scope. The credit does not extend beyond a few days, typically less than a week. Amounts are small -- around KShs 500-1000 which, even for microenterprises, are not large sums -- and no interest is charged. In addition, the loans are confined to microenterprises that are in close proximity and in the same industry.[22]

Microenterprises' have limited access to formal and informal credit. They also are predominantly owned by Kenyan-African entrepreneurs while Kenyan-Asians are strongly represented among

[22]For example, we visited a fixed-site market consisting of scores of microenterprises from different sectors, many of whom had been in the same location for a while. However, there was no indication of significant informal transactions among neighboring enterprises selling different products.

the middle and large firms. This raises a general question: is the limited access to credit of microenterprises attributable to their small size or to the ethnicity of the owners? The question is important because ethnicity is politically sensitive question in Kenya as elsewhere. The difficulties of extending formal bank credit to microenterprises is well recognized anywhere. But what about non-bank sources of credit? Trade credit, for example, is a lot more significant among Kenyan-Asian than among Kenyan-African firms. Is it because Kenyan-African firms are small or vice versa?

Distinguishing the effects of ethnicity from size is not a trivial task given that the two are strongly correlated. Examining the behavior of small panel firms (5-29 employees) proposed itself as an attractive possibility because they have relatively equal proportions of Kenyan-African (33) and Kenyan-Asian (27) firms. Even within this category, however, Kenyan-African firms are on average half as old as their Kenyan-Asian counterparts and employ about half as many people. Their average employment levels are 16 and 10 respectively (medians are 16 and 8); their respective age is 25 and 10 years respectively (medians are 20 and 10). A t-test confirms that the difference between groups is significant at the 1% level in both cases. Consequently, firm size and age cannot be separated from owner ethnicity even within this restricted group.

What is more telling is a comparison of the behavior of traders because as a group they tend to display more sophisticated forms of credit markets and institutions. In the case study, interviews of 23 wholesale and retail traders offer a striking contrast in credit behavior between the two ethnic groups. The difference in access to credit applies even when comparing retail traders only. A Kenyan-African trader typically purchases and sells his or her goods on a cash basis. Some traders receive merchandise on credit from manufacturers that are state-owned firms. Slow-moving items may be given on a consignment basis. A few traders manage to get access to credit through another business. But as a rule items are purchased only when cash becomes available from sales. As result, the common response to a liquidity squeeze is to reduce margins and to sell merchandise faster. Circulating a given amount of unleveraged financial capital is a pattern that holds even for trading firms that have been in operation for many years.

Kenyan-Asian traders, in contrast, have much greater access to trade credit and other forms of finance. Working capital is rarely an issue of concern for Kenyan-Asian traders. Virtually none of them feels they have ever been in a situation where they needed funds for a business emergency or for a quick investment in a profitable project and were unable to obtain them. A striking example is that of a young, newly-wed trader who moved to Nairobi from a another town where his family is based. He had worked with his elder brother and helped running the family's trading business, but he otherwise had no experience and was new in Nairobi. Within a month of starting their business, however, he and his wife had managed to fill the shop with merchandises they obtained on credit or consignment basis. The credit they got mostly came from firms that had sold to his family's business in the past. Because minimal capital was tied up in goods, the new comer was able to put down the rent for a prime location in the busiest business district of the city.

In addition to extensive access to trade credit, Kenyan-Asian entrepreneurs, traders as well as manufacturers, have access to a well-developed informal market for short-term credit. Finance companies play an important role in this market. Finance companies have proliferated in Kenya in recent years. Many are in the hands of Kenyan-Asians. Most of their activities, like lease financing and operations on the inter-bank money market, are recorded and little subject to underestimation.

Finance companies, however, also are an important source of liquidity through informal loans to known people on trust basis.[23] For their recorded loans, finance companies rely on state enforcement and serve a wide market. Unrecorded informal loans, however, are confined to individuals who are known to the finance company, which usually means from the same community and, therefore, the same ethnic group. Moreover, some of the finance companies are associated with specific groups of Kenyan-Asian firms in structures that resemble those of Latin American 'grupos' and other, more important groups found in Japan and Korea.

In sum, the financial transactions of Kenyan-Asian manufacturing firms are embedded in social institutions that guarantee institutional access, and enable high levels of information flows and robust reputation mechanisms. Institutional access means that funds are made available to firms through banks and finance companies.[24] This access is supplemented by markets and institutions that enables a relatively smooth, low cost flow of funds across different firms in the economy. The fungibility of money and informal mechanisms thus allow a part of the economy to approximate the ideal "trickle down banking": the injection of bank credit at points of relatively low enforcement and monitoring cost (i.e., larger firms) complemented by information intensive, informal intermediation among firms.

Credit intermediation does not extend to the whole economy, however, due to absence of institutional mechanisms to support credit transactions across ethnic lines. While such intermediation is not totally non-existent, there is a clear reluctance of many Kenyan-Asian firms to lend to (smaller) Kenyan-African firms due to enforcement problems. Understanding the relationship between reputation, enforcement, ethnicity, and firm size is the object of the next chapter.

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[23]A number of these informal loans and the corresponding deposits seem to go unrecorded in the sense that they do not appear in the finance company's books. Some respondents referred to these loans as the 'black money' market. Tax evasion and avoidance of foreign exchange regulations may explain why these transactions go unrecorded.

[24]Finance companies normally have access to bank credit, like overdrafts. A few are subsidiaries of banks. They can also borrow through the inter-bank market.

Chapter 5. Credit Relationships and the Enforcement of Contracts

We now examine how credit relationships are established and contract enforced. First we consider the extent to which firms rely of socialization to maintain or secure access to credit. The establishment of trade credit relationships is the next focus. The respective roles of trust building through repeated interaction and of reputation via information networks are emphasized. Then we look as repayment problems and how they are handled. Contractual flexibility is the rule in all forms of finance, but particularly for trade credit and informal loans between friends. Finally we explore the frequency with which firms experience contract enforcement problems and how they avoid them. The use that firms make of legal enforcement mechanisms is analyzed at the end. Unless specified, the results presented here are all based on the case study survey.

Section 1. Socialization With Potential Sources of Credit

Banks

Most surveyed firms deal with their bank in an anonymous way (Table 1). Some, however, cultivate good relations with their branch manager and staff, occasionally meeting them outside business. Kenyan-African businesses are much less likely to consider bank staff as casual business acquaintances than non Kenyan-African businesses, possibly reflecting the smaller size of their operation and their lack of visibility to bank employees. Discussions with respondents indicate that a few Kenyan-African businesses among the respondents happen to count a branch manager or staff member among their relatives, friends, or neighbors. As a result they received what could be called small favors: small loans were made to deal with emergencies; bank procedures regarding collateral were occasionally bypassed. The amounts lent, however, remain small because branch managers must report to headquarters all loans above a certain limit. The benefits firms can derive from such acquaintances are also short-lived, as branch managers are rotated among various branches -- probably to limit this kind of behavior. One should add that in all cases we encountered, the loans were repaid promptly.

Table 1. Socialization with Bank Managers and Staff

	All firms	Manuf firms	Trade firms	Keny. Afric.	Keny. Asian	Micro firms	Small firms	Med. firms	Large firms
Anonymous relations	45%	33%	63%	67%	36%	60%	46%	44%	14%
Business casual	30%	44%	11%	7%	42%	24%	15%	44%	57%
Business lunches	9%	7%	11%	13%	7%	11%	23%	0%	0%
Community relations	15%	15%	15%	13%	16%	6%	15%	11%	29%
Number of firms	*46*	*27*	*19*	*15*	*31*	*17*	*13*	*9*	*7*

Source: RPED Case Study Survey

None of the Kenyan-Asian businesses we spoke to was personally acquainted with bank staff, but several felt they could rely for emergency loans on members of their community who work in non-bank finance companies. One went even as far as explaining to us the workings of 'black money', a secretive financial market in which the managers of banks and financial institutions and other well connected individuals take private deposits and organize private loans for privileged customers. These loans, we were told, are extremely flexible and are made without any security or collateral other than the knowledge of the lender's business that the lender has acquired through normal business transactions.

Informal Sources of Credit

Informal sources of credit potentially play an important role in a firms' ability to withstand liquidity shocks. Respondents often became emotional when recalling past experiences during which the firm was salvaged by a friend's loan. When asked specifically to describe their relationship with potential sources of informal credit, respondents overwhelmingly cited friends and relatives. A sixth of them also cited parent companies. One fourth, however, cited simple business acquaintances or members of the same community. Being part of a wealthy family with diverse business interests and good connections to a prosperous community is an important asset because it provides a much needed insurance cushion against business risk. For that reason the prosperity achieved by an ethnic communities tends to reinforce itself over time.

Suppliers

Two-third of the surveyed firms have a relationship with their supplier that transcends anonymity (Table 2). One third of them pay each other business visits and take an occasional lunch or tea together. Another third meet in the community or are even better acquainted. Half the firms meet their suppliers personally either occasionally or frequently, on average every five months. Acquaintance with suppliers shows no clear relationship with firm size, except that large firms seem more likely to deal with each other in an anonymous fashion. Traders as a rule are better acquainted with their suppliers than manufacturers. Two-third of Kenyan-African businesses never meet their suppliers and do not know them other than by name, against only one sixth of the non Kenyan-African businesses. None of the Kenyan-African businesses meet their suppliers in the community, against two-fifths of the non Kenyan-African businesses. Many Kenyan-Asians indicate that they customarily contact suppliers over the phone and socialize with them that way.

Table 2. Socialization with Suppliers

	All firms	Manufact. firms	Trade firms	Kenyan-African	Kenyan-Asian
Anonymous relations	32%	39%	23%	62%	13%
Business casual	30%	39%	18%	19%	38%
Business lunches	8%	7%	9%	9%	6%
Community relations	23%	13%	36%	0%	38%
Previous acquaintance	7%	3%	14%	9%	6%
Number of firms	*53*	*31*	*22*	*21*	*32*

Source: RPED Case Study Survey

Other indicators of acquaintance among firms by and large confirm this picture. Half of the suppliers know the location of the owner's residence -- one fourth only for Kenyan-African businesses. Suppliers of two-third of the firms would know of major events affecting their customer, often through the community or from other businesses. Although manufacturers are less personally acquainted with their suppliers, they nevertheless know more about their suppliers and vice versa than traders. Kenyan-African businesses as rule know less about their suppliers and their supplies know less about them than their non Kenyan-African counterparts. They are particularly mutually ignorant of details that are not directly observable through casual visits, like private residence, profit, and major events affecting each other's business.

Section 2. The Establishment of Trade Credit Relationships

With Suppliers

The major strategy for establishing trade credit with suppliers is through repeated interaction, either with individual suppliers or with a community of business people (Table 3). Two-fifths of the surveyed case study firms who receive trade credit from their suppliers first bought goods on cash for a while before qualifying for credit. This process is lengthy and has to be repeated for each individual supplier. Three-fifths of the supplier credit recipients, however, were able to use personal contacts, credit acquaintances, and business reputation to secure trade credit from the start. The ability to secure trade credit from the start significantly facilitates launching a new business. One of the surveyed firms, for instance, was a newly established food wholesale business. Thanks to previous acquaintance with suppliers, the respondent was able to fill his store with suppliers' goods from the very first day of operation. Similar stories were told many other respondents. Immediate access to trade credit enables firms to leverage their initial capital and instantly achieve a viable size. The is no strong relationship between firm size and access to trade credit, except perhaps that large firms get credit from the start on account of their large size and bureaucratic procedures. Only a a third of all surveyed Kenyan-African firms receive supplier credit. Nearly eighty percent of them had to buy cash for a while before qualifying for trade credit (Table 3). Only one fifth of them got credit from the

start, none used mutual contacts. On the other hand, all non Kenyan-African firms received supplier credit. Only one fourth of them had to buy cash for a while, the others used previous contacts.

Table 3. The Establishment of Trade Credit with Suppliers

	All firms	Manufact. firms	Trade firms	Kenyan-African	Kenyan-Asian
Bought cash for a while	38%	46%	25%	78%	26%
Used mutual contacts	15%	4%	31%	0%	19%
Knew supplier before	25%	25%	25%	11%	29%
Credit offered from the start	23%	25%	19%	11%	26%
Number of firms	*40*	*24*	*16*	*9*	*31*

Source: RPED Case Study Survey

Three-fourth of the respondents state that they establish their reputation with suppliers by being a good paymaster. Most specified that a good reputation has to be established with each supplier individually. More than half of the surveyed firms believe their suppliers do not exchange information about their payment record and that delaying payment to one of the suppliers does not affect their reputation with other suppliers. The other half perceive themselves as establishing a track record within their business community. Of the 7 Kenyan-African business person who answered that question, 6 said their suppliers do not exchange information about them; by contrast, two-third of the 15 non Kenyan-African business person who answered the question stressed that their suppliers do exchange information about their payment record. Reputation looms larger among non Kenyan-African than among Kenyan-African businesses.

With Customers

Case study respondents were asked to describe what constitute a creditworthy customer. Two-third of them answered someone with whom they have had a long and successful business relation. One fourth of the firms associates creditworthiness with a good reputation among others -- e.g., other suppliers, community members. One firm out of ten mentions previous acquaintance, but not necessarily as a customer. Firms were then asked how they identify creditworthy customers and collect information about potential recipients of trade credit. Their answers can be grouped into four categories: direct observation; asking around; repeated interaction; and previous acquaintance. Direct observation is practiced in various forms. Some respondents physically visit their client's business and, in the course of the conversation, observe how well their client is doing. They note how the client is dealing with customers and workers, the quality and amount of goods in stock, the rapidity with which inventories circulate, etc. Others rely on their ability to judge a man through interview. One respondent, for instance, said he could judge a man's creditworthiness by how he bargained. If the customer was willing to settle for too high a price, he would suspect either that the client was not serious about repayment, or that he knew little about the business and was unlikely to sell the items.

Either way, the respondent concluded that credit should not be given[25]. A few firms rely on their client's wealth and consumption pattern as indicators of their ability to repay.

Table 4. The Screening of Potential Trade Credit Recipients *(multiple answers allowed)*

	All firms	Manufact. firms	Trade firms	Kenyan-African	Kenyan-Asian
Repeated sales	56%	59%	50%	33%	67%
Ask around	80%	93%	56%	33%	100%
Visit and interview	73%	72%	75%	100%	53%
Previous acquaintance	13%	10%	19%	20%	10%
Take the chance	9%	10%	6%	7%	10%
Number of firms	*45*	*29*	*16*	*15*	*30*

Source: RPED Case Study Survey

Respondents ask information about a potential debtor from various sources. Some firms ask the client to provide the names of people who can recommend them. References must preferably be among people known to the respondent. Most, however, operate in a less direct and inquisitive way. They prefer to accept the client's order and enquire with their friends over the phone after the client has left. If they receive a bad report, they subsequently use some excuse to turn the client down for credit. Of course no one is dupe. Calling friends and business contacts is most often practices to screen 'upcountry' customers, that is, customers who do not reside in Nairobi and whose business the respondent finds costly to visit. In a few cases we were surprised to hear that respondents exchange client related information with competing suppliers. In a couple of textile firms, respondents even said they meet regularly with other suppliers and discuss late payers and defaulters, thereby constituting what could be called an information sharing cartel. That firms which otherwise compete for the same clients can agree to share such strategic information serves as a reminder of the critical importance of information sharing to prevent and discourage contract non-compliance.

One fifth of the firms seek information from the client's bank as well. Banker's opinions tell how the client is dealing with his or her bank and often state for how much their client is 'good', that is, for how much credit they can be reasonably counted on. Their main drawback is that they take a few weeks to come. The client may not accept to wait for that long before finding out whether the respondent accepts his or her order. The contrast between firms again confirms that Kenyan-African businesses have fewer business contacts from which they can obtain information about potential recipients of trade credit. They are much more likely to rely on direct inspection of their client's business.

[25]This particular example is close to the formalization of credit rationing by Stiglitz and Weiss (1981).

Repeated sales to the client is another, more personalized way of establishing a trade credit relationship. The creditworthiness of a potential debtor is assessed through his or her past purchases with the respondent. The regularity and quantity of purchases, the business attitude, the reliability of check payments are all factors that are taken into consideration. The most pressing concern of the trade creditor is whether the debtor is a genuine business or a fly-by-night operator. Typically small loans are given first and the promptitude with which they are repaid is evaluated before larger, more regular trade loans are granted. The whole process takes several months. A quarter of the firms also mention previous acquaintance as a mean of assessing a client. Although family relationship or friendship are cited by a few firms, most others refer to previous business acquaintance. Several respondents, for instance, gave credit to clients who were previously working as employees or partners in businesses they were supplying to. A few firms confessed they had no screening process whatsoever; they just take the chance. Some firms cited taking guarantees as a way of assessing truthfulness. Four firms explicitly saw requesting advances from customers as a way of asserting the seriousness of the client's intent.

The source of the information influences how it is evaluated. Respondents trust more information that was cross-checked, and information that comes from people they know or regard as impartial, like banks for instance. Those who can cross-check the information received usually do, especially if they are unsure about their source. Some respondents are unable to cross-check, however; they must either rely on direct observation or trust their single information source. A few respondents were willing to elaborate further on the credibility of their sources. They see information exchange as a quid-pro-quo. Information sources who deliberately circulate false information hurt their reputation in the community. Credibility is but another aspect of reputation.

Section 3. Repayment Problems

With Banks

Two-third of the firms cite ever having difficulties repaying their bank. A Probit analysis indicates no significant differences among firm categories (Table 5). Respondents estimate that they could delay payment by about one month without incurring any major sanction. Beyond that delay banks start sending lawyers' letters and other reminders and charge financial penalties unless the firm gets in touch with the branch manager to explain its situation. Discussions with bank staff confirm that banks typically wait for a month before sending nasty letters. If no response to those letters is received from the debtor within another month or so, the file is transferred to the bank's lawyers. Most debtors, however, contact the bank before then and explain their problems. Two-third of the surveyed firms who experienced repayment problems said that their bank is accommodating provided it can be convinced that their client's difficulties are genuine and temporary.

Table 5. Probit Regression of Repayment Problems with Banks *(significance level in italics)*

Log-lik. value	Const.	Ethnicity of manag.	Log. # workers	Manuf. dummy	Age of firm	Textile dummy	Wood dummy	Metal dummy
-13.531	.273	-1,133	-.096	.011	.004	.563	.030	.851
.911	*.854*	*.213*	*.713*	*.988*	*.857*	*.612*	*.977*	*.437*

Source: RPED Case Study Survey -- 22 observations

With Informal Lenders and Personal Loans to Friends

Seventy percent of the firms having taken loans from informal lenders experienced problems repaying them. They estimated they could delay repayment by up to nine months without incurring sanctions. Only a third of them said they would face harassment if they failed to repay within that time frame. The others claimed they would face no sanction, the debt would be forgiven. The lender's willingness to wait in all cases depended on the respondent's predicament. Two-thirds of the informal lenders, however, made an independent assessment of the respondent's situation by visiting their business and making their own observations.

A little less than half the surveyed firms recognized making occasional loans to friends for an average duration of one month. Half of them experienced problems recovering their money. A Probit regression (not shown) indicates no significant relationship between firm characteristics and the likelihood of encountering problems collecting from friends. The number of observations (13) is small, however. Respondents are willing to wait up to nine months or more for payment. Half of them would forgive their friend's debt if repayment is not forthcoming; the other half would seek to recover their money by reminders and legal means. One respondent stated she would never lend money to a friend: she would loose both her friend and the money.

With Trade Credit From Suppliers

Almost all respondents have experienced difficulties in repaying suppliers. They estimate that they can delay payment for one month without incurring sanctions. On average they can stretch repayment to suppliers about three times a year. The most common practice is for the debtor to apprise the creditor of difficulties and to negotiate a rescheduling of payment. A fourth of the surveyed firms decide unilaterally when to repay and wait for their supplier to call them up. The few firms that have given post-dated checks or bills of exchange to their suppliers must plead with them to delay presenting them for payment. This is particularly delicate with bills because they can be discounted and are normally collected by banks.

The great majority of suppliers do not attempt to verify the excuse respondents gives to delay payment. Some suppliers use relative performance evaluation: they rely on their knowledge of general business conditions to assess whether delayed payment is out of line with the general situation faced by other firms. A few respondents volunteer hard evidence to their supplier -- like a bounced check from one of their customers, for instance. There is a clear implicit understanding that repeated delays hurt the relationship with the supplier. A firm's past payment history influences how compassionate and responsive suppliers are to a firm's payment problems. If past payments have been regular, an occasional delay is accepted without question. If several payments suffer unusual delays, however,

the firm is less likely to be given the benefit of the doubt. The supplier's trust is eroded and the firm's reputation suffers. In most cases, the fear of loosing the supplier-creditor's trust and of damaging one's reputation in the community is sufficient to guarantee that flexibility is not abused. Repeated interaction thus substitutes for gathering costly information on the idiosyncratic shocks affecting the debtor.

In the great majority of cases, there is no explicit guarantee for repayment. The most likely sanction firms incur if they delay payment beyond reason is the suspension of credit or deliveries. Ten percent of the firms cited financial penalties as likely sanctions; an equal proportion cited debt forgiveness. Only one or two firms cited legal action. Detailed discussions with respondents indicate that suppliers' sanctions are subtle and progressive. Suppliers appear to have a preference ordering of their clients that gets revised on the basis of the performance of each. Best deals -- timely deliveries, preferential access to hard-to-get items, etc -- are offered to clients highest in the ranking. Bad payers have lower priority and do not get anything if the supplier has insufficient stock to satisfy the market. A client who has completely fallen out of favor is not even able to place an order and is politely be turned down, usually on the pretext that the supplier is out of stock. We could not help thinking that certain suppliers, particularly those with market power, deliberately set their selling price just low enough so as to ration their output, then use rationing to discipline their clients.

The overwhelming majority of firms indicate that the supplier's willingness to wait depends on the respondent's situation. Half of the suppliers, however, have no way of verifying what they are told. Some use their knowledge of general business conditions, others observe the respondent's business by themselves, a few exchange information with other firms. The attitude of respondents during this part of the interview -- giggles, smiles, rolling eyes -- suggests that most respondents actually play games with their suppliers and use delayed payment as an easy access to cheap credit. The more outspoken respondents actually told us so quite plainly. Everybody knows the nature of the game and no one takes payment delays seriously unless they go beyond what is considered acceptable.

With Trade Credit to Clients

Virtually all the firms that give credit to their clients experience some problems recovering their money. The allowed delay goes up to four months. The most common reaction is to harass and threaten bad payers. Harassment methods are adapted to circumstances. One respondent, for instance, reported sending a collection agent to debtors at opening time because, in the Hindu tradition, it is bad omen to be asked for money first thing in the morning. Half the firms also stop credit and deliveries. Most firms declare that their willingness to wait depends on the situation of the debtor. A quarter of the firms use their past experience with the debtor as a basis for evaluation. Some visit their client or observe his consumption pattern. Half the firms are informed by others or know the client intimately because he or she has a neighboring business or is a family member. Respondents seem to find out more about their customers than they think their suppliers know about them. A third of them cannot, however, judge whether the excuse made by the client is genuine or not. This is particularly true with 'upcountry' clients whose business is located too far to allow visual inspection. It is therefore little surprise that the bad repayment record of upcountry customers is a frequent object of complaint.

Section 4. The Enforcement of Commercial Contracts

Questions were asked about contractual difficulties faced by firms in Kenya in the panel survey as well as in the case study survey. Answers are very similar. To avoid repetition and avoid confusion, we only discuss the more detailed case study survey here.

Orders and Deliveries from Suppliers

Three quarters of the firms place in total an average of 75 orders with their suppliers every months (Table 6). Trading firms and non Kenyan-African firms are more likely to place orders than manufacturing and Kenyan-African firms. Half the firms ever faced non-delivery, partial or complete. The percentage was higher with non Kenyan-African and trading firms. The median frequency of non-deliveries is one every five months; the average time elapsed since the last occurrence is 7 months. Very few cases involve imports; a third of them involve public firms. This is partly a reflection of how few direct imports and public suppliers respondent firms deal with. In two third of the cases partial delivery was made. The most common reasons for non-delivery is that the supplier was unable to find suitable inputs and that the supplier had insufficient capacity to satisfy all customers. A few orders were canceled by the supplier when cost conditions changed dramatically and prices went up. In two third of the cases, respondents reacted by either waiting or ordering from somewhere else (Table 7). Only a few bothered to insist on the fulfillment of the contract.

Table 6. Contractual Problems with Suppliers *(number of valid answers varies with question)*

	All firms	Manufact. firms	Trade firms	Kenyan-African	Kenyan-Asian
% firms placing orders	72%	61%	87%	50%	88%
% firms ever facing non-delivery	52%	42%	65%	24%	69%
% firms ever facing late delivery	68%	58%	80%	47%	79%
% firms ever facing deficient quality	82%	80%	86%	84%	81%
% firms solving problems satisfactorily	72%	64%	83%	63%	78%

Source: RPED Case Study Survey

Table 7. Action Taken in Response to Delivery Problem with Supplier

	Non-delivery	Late Delivery	Deficient Quality
Wait, order from elsewhere, do nothing	61%	53%	18%
Insist on fulfillment of contract	13%	37%	63%
Renogotiate contract	13%	10%	8%
Cancel order, ask for compensation	13%	0%	13%
Number of observations	*24*	*30*	*40*

Source: RPED Case Study Survey

Two-third of the firms ever experienced late delivery -- more among trading and non Kenyan-African firms since they are more likely to place orders (Tables 6). Late delivery afflicts large firms two and a half times more than small firms. The median frequency of late delivery among case study firms is once every three months; the average time elapsed since the last occurrence is 4 months. The average delay is 20 days. Few imports or public firms were involved. Pre-payment was made only in one fifth of the cases. The most common reasons for late delivery was that the supplier was unable to find the inputs or was delayed by transportation problems. In most cases the respondent simply waited for the goods to show up; in one third of the cases, they complained and reminded the supplier (Table 7). Similar results are given by the panel survey.

Virtually all firms have faced deficient quality at one time or another, irrespective of firm category (Tables 6). The median frequency of occurrence is once every five months. Deficient quality afflicts large firms seventy percent more than small firms. In forty percent of the cases payment was made before discovering the defect. In the rest of the cases, the client could verify the goods before payment. Trade credit thus helps enforce quality because the client can threaten to hold up payment until the problem is solved. Half the respondents attributed the deficient quality to normal manufacturing or handling defect. More than one third of the firms, however, estimated that the supplier had made a mistake or had been careless or dishonest. Two-third of the respondent were able to exchange the goods; a few got a refund (Table 7). A fifth of the firms, however, had to take a loss. These often were small, cash buying firms.

The most recent problem respondents had to face with a supplier was mostly one of deficient quality (Table 8). Late delivery came second. The supplier was mostly a large manufacturer, seldom the sole source of supply, never a friend or relative, a third of the time from the same ethnic group. In the overwhelming majority of the cases, the respondent had dealt with that supplier before, on average for 11 years. In two-third of the cases, the problem was solved through direct negotiations with the supplier. In virtually all cases, respondents were still doing business with that supplier. Only three-quarters of them declared themselves satisfied of the outcome; in a few cases the problem was still pending. Recourse to courts and police for delivery problems is extremely rare.

Table 8. Resolution of the Last Dispute with Supplier or Client

	With a Supplier	With a Client
Did nothing, just waited	32%	32%
Negotiated directly with other party	68%	59%
Brought matter to court or arbitrator	0%	9%
% cases where dispute was solved	82%	69%
% cases where respondent satisfied by outcome	72%	70%
% cases where still doing business with party	96%	72%
% cases where still giving credit to client	n.a.	42%
Number of observations	*45*	*46*

Source: RPED Case Study Survey

Payment from Customers

The surveyed firms make around 235 sales per month. Two-thirds of the case study firms ever experienced non-payment (Table 9). The percentage of firms with non-payment is higher among large firms, presumably because they are involved in a larger number of transactions. It is also higher among non Kenyan-African firms, probably because they are more likely to sell on credit than Kenyan-African firms. The median frequency of non-payment is once every 10 months, or roughly one sale in every 2350, a surprisingly low non-payment rate. The average time elapsed since the last occurrence is 20 months. Full delivery was made in virtually all cases. Partial payment was made in two-third of the cases. One third of the time a bounced check is involved. The most frequent reason for non-payment is that the client experienced various financial and personal difficulties. In forty percent of the cases, however, respondents attributed non-payment to dishonesty or carelessness. A third of the respondents simply waited for the client to come and pay (Table 10). The other were more active. Most complained and insisted on prompt payment. Some accepted to reschedule repayment. Those who hold the client's goods as guarantee (e.g., tailors who receive material from their client) eventually sold them when the client failed to pick them up.

Table 9. Contractual Problems with Clients *(number of valid answers varies with question)*

	All firms	Manufact. firms	Trade firms	Kenyan-African	Kenyan-Asian
% firms ever experiencing non-payment	60%	66%	52%	40%	73%
% firms ever experiencing late payment	81%	94%	62%	70%	88%
% firms solving problem satisfactorily	70%	70%	69%	67%	71%
% firms ever consulting a lawyer regarding client	34%	38%	27%	14%	46%

Source: RPED Case Study Survey

Most firms ever experienced late payment by their customers (Tables 9). Manufacturers are more likely to report late payment than traders. The median frequency of occurrence is once every six months. The average time elapsed since the last occurrence is 11 months. The average length of the delay is five months. In most cases final delivery and partial payment were made. Only one case out of ten involved a bounced check. Again the most frequently cited reason for delay was that the client experienced financial difficulties. A number of cases was nevertheless attributed to carelessness or dishonesty, or to the client's need to travel. In half the cases the respondents simply waited for the client to show up; others insisted on prompt payment or explicitly renegotiated payment terms (Table 10).

Table 10. Action Taken in Response to Payment Problem with Client

	Non-payment	Late payment
Wait, or do nothing	32%	45%
Insist on prompt payment	46%	45%
Renogotiate payment	11%	11%
Sell goods kept as guarantee	11%	0%
Number of observations	*28*	*38*

Source: RPED Case Study Survey

The most recent dispute with a client was a late payment involving either a small trader or a individual final consumer. In nearly half the cases the respondent and the client were of the same ethnic group. It seldom was their first transaction together: on average they had been dealing with each other for over five years. One third of the respondents simply waited for payment to be made (Table 8). Sixty percent of them negotiated directly with the client. A few brought the matter to a

lawyer or arbitrator. In two-third of the cases in all firm categories the problem could be solved satisfactorily and the parties resumed business (Tables 8 and 9). In most cases, however, the client no longer qualified for credit.

Avoidance of Problems With Suppliers and Clients

Case study firms were asked to comment on the ways by which delivery problems with suppliers. The most effective method to avoid or minimize problems with suppliers, they indicated, is to inspect goods at delivery and give precise orders well in advance (Table 11). Firms prefer to deal with suppliers they have had no problem with in the past, and place orders on the basis of reputation or brand name. Firms also cultivate good relationships with their suppliers through business lunches and visits, and by paying them on time. Formal proofs and procedures were hardly ever cited. Kenyan-Africans are much less numerous in citing repeated interaction, reputation, and good relations as ways of avoiding problems than non Kenyan-Africans.

Table 11. Strategies to Avoid Problems With Suppliers *(multiple answers allowed)*

	All firms	Manufact. firms	Trade firms	Kenyan-African	Kenyan-Asian
Apply care and caution	87%	78%	100%	89%	86%
Rely on trust and reputation	53%	70%	30%	16%	79%
Cultivate good relations	53%	41%	70%	26%	71%
Other	15%	11%	20%	21%	11%
Number of firms	*47*	*27*	*20*	*19*	*28*

Source: RPED Case Study Survey

The most effective way of avoiding problems with clients is to insist on complete payment upon delivery (Table 12). Better still, one can ask for an advance or down-paymentt when taking an order. Repeated interaction is considered the next most effective method. Relying on the client's business reputation is not *per se* perceived as a major way of avoiding problems. Careful screening of customers, and legal proofs and institutions are cited only by a few firms. Showing flexibility and avoiding misunderstanding also help smoothing things out. Kenyan-African firms cite cash payment and advances as the most effective method of avoiding problems and put less emphasis on repeated interaction, reputation and good relations (Table 12). Non Kenyan-African firms, on the other hand, privilege repeated interaction and attribute more weight to reputation and good relations. Large firms seem to rely more on legal proofs than small firms, but the sample size is too small to be conclusive.

Table 12. Strategies to Avoid Problems With Client *(multiple answers allowed)*

	All firms	Manufact. firms	Trade firms	Kenyan-African	Kenyan-Asian
Insist on cash payment and advances	91%	94%	86%	100%	78%
Rely on repeated interaction	79%	84%	73%	52%	97%
Rely on business reputation	23%	26%	18%	10%	31%
Rely on screening and legal guarantees	36%	48%	18%	29%	38%
Cultivate good relations	34%	35%	32%	29%	38%
Number of firms	*53*	*31*	*22*	*21*	*32*

Source: RPED Case Study Survey

The Use of Legal Institutions

Few firms ever involved third parties in their disputes with suppliers but 38 percent of them consulted a lawyer at least once regarding a client (Table 13). Large firms are more likely to call upon lawyers than small firms, presumably because the size of the latter's transactions is too small to incur the lawyer's fee. Kenyan-African firms hardly ever use lawyers; nearly half of the non Kenyan-African ones do. One third of the respondents threatened at least one of their customers with court action; one fifth of them actually went to court. Another fifth used formal arbitration, mostly through a common friend. Several respondents say they have not taken legal action because they perceive the legal system as being both expensive and subject to manipulation -- courts, they say, can be bribed by both sides. They claim that the settlements amount to little more than a rescheduling of payments, which does not compensate them for their trouble. Some add that court rulings are not enforceable against 'judgement-proof' debtors, that is, debtors without any asset that can be seized. Several respondents also expressed anxiety at having their name muddied by the publicity of a contractual dispute and did not want to acquire a reputation for undue toughness. Private resolution of contractual matters is deemed preferable. Only a couple firms involved the police or used harsh language with a client. They were not boisterous about it.

Table 13. The Use of Legal Institutions

	With Suppliers	With Clients
% of firms ever to consult a lawyer	6%	38%
% of firms ever to threaten court action	2%	33%
% of firms ever to initiate court action	0%	21%
% of firms ever to seek third party intermediation	4%	17%
% of firms ever to use third party arbitration	0%	6%
% of firms ever to threaten calling the police	2%	4%
% of firms ever to resort to verbal or physical abuse	4%	4%
Number of observations	*52*	*56*

Source: RPED Case Study Survey

Summary: Trust, Reputation, Legal Institutions and Access to Credit

The picture of enterprise credit and contract enforcement that emerges from the our work is a detailed and complex one. It has many facets that we now try to disentangle. We focus on three categories of enterprise credit: bank credit; loans from friends and finance companies; and trade credit. In all cases we summarize what we have learned regarding enforcement, access, flexibility, and information.

Bank Credit

Of the three categories of lenders listed above, banks are those that most heavily rely on the **legal enforcement** of contracts. Banks take mortgages on real property, debentures on stock and moveable assets, and personal guarantees. Banks deal in checks and bills. Banks sign detailed loan contracts with their customers, and they follow complex administrative procedures for loan approval. These procedures serve a multiple purpose: paperwork is required for the establishment of legal documents; information about the borrower must be compared to the bank's own records; and the borrower's credential with other banks must be verified through bankers' opinion. As a result, **access** to bank credit is typically formal and lengthy. Candidate borrowers who do not possess real assets are at a serious disadvantage. Banks discourage small loans because they cannot cover the administrative cost. When banks have to administer small loan programs, for instance at the request of international donors, they adopt simplified procedures and rely on different enforcement mechanisms.

Bank credit, however, is not as rigid and inaccessible as the above suggests. First of all, banks have developed a contractual way of handling multiple small short-term loans for working capital purposes: the **overdraft facility**. The beauty of the overdraft facility is that, once it has been

established, it guarantees immediate access to credit up to the overdraft limit. It is cheaper than a straight loan because interest is charged only on the amount used. Guaranteed access distinguishes it from alternative of sources of short term credit, like loans from friends. Firm can take it into account when planning their liquidities. All or part of an overdraft facility can be kept as a buffer fund. All these reasons explain why overdraft facilities are the most popular form of bank credit among Kenyan firms.

Second, banks occasionally disregard normal procedures when the staff member making the loan decision feels particularly confident about a candidate borrower and the validity of his or her project. As a result, **close friends** of branch managers may receive small loans or overdraft facilities without proper collateral. This form of bank credit remains, on the whole, exceptional. By definition it is restricted to a small group of fortunate people who happen to count a branch manager among their friends or relatives. The bank as a firm must also protect itself against the risk of embezzlement by limiting the size of such loans. But according to a few small firms we spoke to, such loans at a key period of their history -- i.e. when they were trying to start or expand their business, or when they were hit by a severe shock threatening the survival of the firm -- gave them enough breathing space to get over trying times.

Third, banks help many firms get instant access to **very short-term credit**. For instance banks may delay the payment of a check for a couple of days. They allow borrowers to exceeds their credit limit for a while. In some cases, they may credit someone else's account before debiting the firm's account. Such services are extended to established customers who maintain a good business relationship with the bank. Fees, however, are charged: the bank does not do anything for nothing. Going over one's overdraft limit can be costly.

In terms of repayment **flexibility** one must make a sharp distinction between overdraft facilities and straight loans. **Overdrafts** do not have a repayment schedule. As a matter of fact, they can be extended indefinitely. The only problem that may arise is if the facility is not renewed at the end of the year, or if it is not expanded to account for inflation and firm growth. In most cases renewal is granted but some firms have experienced difficulties there. Overdrafts are cancelled when the borrower fails to comply with the terms of the contract. Banks are most concerned about firms using overdraft money to finance equipment purchases or personal loans to firm managers. As we have seen some firms manage to use overdraft money for equipment. One of the respondent was in the process of loosing his overdraft facility for having taken a personal loan from the firm.

Loans have a fixed repayment schedule. Consequently, on paper at least, they are more rigid. Repayment inflexibility serves several useful purposes. It imposes a certain discipline on borrowers by providing incentives for prompt payment. It also serves to reveal information. A borrower who skips an installment signals that he or she is in difficulty. Banks rely of skipped installments as signs of trouble to come and redouble caution with delinquent borrowers. According to one bank manager we spoke to, a major disadvantage of overdraft facilities is precisely that they fail to alert the bank when firms are facing trouble. As a result, banks often respond when it is too late. This manager argued in favor of loans with small but frequent installment, say weekly, to keep the bank better informed of its borrowers' situation.

Although delinquent loan borrowers are the object of increased scrutiny, banks nevertheless make an effort to be reasonably flexible. Bank's flexibility comes from the recognition that too rigid

a stance is counterproductive. The bank must be tough enough so that borrowers do not falsely claim that they cannot meet loan installments. To that effect financial penalties are associated with late payment. Any borrower who is faced with such penalties and still claims to be unable to pay, however, most probably cannot pay. Forcing repayment would simply push him into bankruptcy. Given the associated costs and uncertainties, a borrower's bankruptcy is typically not in the bank's interest. Banks have thus devised several ways to be flexible yet firm. First, loans are normally coupled with an overdraft facility, so that if a firm cannot meet a loan payment, it can use the overdraft to cover for it. Even if the borrower's overdraft is already fully utilized, banks typically wait for more than a month before handling the matter to their lawyers. Most borrowers get in touch with their bank right away and explain the situation. If they can convince their bank that the problem is temporary and that money is forthcoming, a rescheduling of the skipped installments is worked out and the borrower put on probation. Otherwise the borrower's file goes to the bank's lawyers with instruction to seek repayment by all legal means. Lawyers first try to collect by writing to the borrower directly. Only if all else fails do they take the matter to court and seek foreclosure. The foreclosure process itself takes another several months during which additional opportunities exist to settle the matter amicably. Throughout the process, banks seek the mix of firmness and flexibility that guarantees the maximum probability of repayment.

Banks get **information** about new borrowers in ways that are not radically different from other sources of credit. Most of the information they obtain comes from the borrowers themselves: investment plans, working capital requirements, balance sheets, etc. That information is scrutinized for internal consistency, and compared to other information the bank has at its disposal. Repeated interaction with the borrower is the next most important source of information for the bank. By handling the borrower's accounts, the bank knows the borrower's volume of transaction, the rhythm of his or her business, whether the borrower has bounced checks or bills, whether he or she is careless about financial issues, and whether he or she has failed to pay previous loans on time. As a result borrowers are most likely to obtain loans and overdraft facilities from a bank they have been banking with for years. Few even bother to approach another bank. A borrower's reputation within the banking or business community at large appears to play a relatively minor role, although banks occasionally seek each other's opinion on a particular borrower. Large firms, thanks to their visibility, may be the only ones who can shop around among banks for better loan and interest rate conditions. Others are stuck with the bank they are banking with.

Informal Credit and Finance Companies

In Kenya, as far as enterprise finance is concerned, informal credit boils down to loans among friends. The system operates more like a mutual insurance system à la Udry than like a credit market. Loans are disbursed to meet liquidity constraints and other emergencies. **Enforcement** is largely informal and based on repeated interaction between friends and reputation within the business community. Someone who unduly defaults on a personal loan exposes himself or herself to future ostracism. Since the community is also a potent information exchange mechanism, a business person who cuts himself or herself from the community seriously reduces his or her chances of success in business. By refusing to repay a loan when one should not have, one also forfeits the insurance that friends provide. In a few cases, informal loans also partially rely on legal enforcement. Some

respondents cited taking post-dated checks; other said they would sue a delinquent debtor. Obviously 'friendship' covers different realities, some of which probably closer to the personalized relationship a moneylender may have with some of his customers.

Access to informal loans is extremely fast -- money can be found, respondents say, within a few days if not hours. Although few respondents reported borrowing from friends, many said they would have no problem doing so. The friendship that serves as major enforcement mechanism has to be built up over time. A business person's ability to withstand shocks and thus prosper is a function of his or her network of friends and relatives. If they are numerous and wealthy, the insurance they provide enables the firm to take risk and prosper. If they are few and poor, the firm is at the mercy of external shocks. In practice, the simple fact that one is better connected and insured may encourage other potential lenders to offer credit and other businesses to rely on the firm for their supplies. Wealth and connections attract wealth and connections, success breeds success. This reality alone largely accounts for the economic prosperity of certain segments of the non Kenyan-African population.

The repayment of informal loans is extremely **flexible.** Repayment can be stretched over many months; debts can be forgiven; and the lenders' willingness to wait always depends on the borrower's predicament. It is because lenders are well informed about the borrower's business that they are flexible. What makes informal lenders better informed is the relationship that ties them with the borrower. Informal lenders do not hesitate to complement that information by making their own visual observations and enquiries of the borrower's business. Maximum flexibility and insurance are achieved when information flows most freely.

Finance companies occupy an intermediate position between friends and banks. Like friends, finance companies can approve and disburse loans faster than banks. But unlike friends they charge interest, and their interest is typically higher than that of banks. Given the choice therefore, most firms prefer to borrow from their bank. Like friends therefore, finance companies operate mostly to deal with unexpected liquidity problems or to finance unanticipated high return operations. They are the modern equivalent of moneylenders.

Trade Credit

The **enforcement mechanisms** that support trade credit contracts combine elements of the other two forms of credit. Repeated interaction is the most basic enforcement mechanism. As a customer repeatedly buys from a single supplier, the supplier learns about the volume and regularity of the customer's business, about his habits, about his ability to dissimulate and behave like a business person. The supplier then may test the customer with small loans or by accepting small payment by check. If the experience is satisfactory, trade credit may eventually be forthcoming. **Trust** is built over time, and it is grounded on an understanding of the customer's preferences, technology, outside opportunities, and honesty. Repeated interaction is a multi-purpose enforcement mechanism. It potentially works across ethnic boundaries and, by itself, does not necessitate any exchange of information with third parties. Because trust is a social capital that takes time to accumulate, however, trust-based enforcement reduces the rapidity with which firms can change suppliers and still get trade credit. Trust-based enforcement thus freezes trade patterns and makes it difficult for firms to switch suppliers if relative prices change. The importance of trust in business is supported by the

data: firms typically have a small number of regular suppliers from whom they have been purchasing for many years. Firms without regular suppliers can only be found among those who buy exclusively on a cash basis. Few firms, however, put themselves entirely at the mercy of a single supplier and endeavor to keep several sources of supply open.

Trade credit also relies on **reputation** as an enforcement mechanism. In order to be effective, any reputation mechanism requires the exchange of information within a group. In the absence of legal sanction for bad mouthing someone, opportunistic disinformation can only be minimized within a cohesive enough group. Communities build around a common religious faith and intermarriage are likely candidates to form such cohesive groups. In order for the community to be a source of relevant and useful business information, however, it must count many people in a similar line of business. Community networks thus tend to establish and perpetuate themselves over time. In Kenya, various groups of Kenyan-Asians and other non ethnically African Kenyans have been particularly successful at setting up such networks and are now reaping the benefits from such arrangements. The surveys brought to light the impact that the existence of a reputation mechanism has on business. Firms which are part of a network are more likely to get trade credit and to get it right from the start. They get trade credit from more suppliers, at better terms. This enables them to start and expand their business much faster than firms outside any network. Since members of their network can more easily verify whether or not they are telling the truth about their situation, repayment is more flexible. Because they get more credit and the credit they get is more flexible, firms in community networks survive exogenous shocks more easily and do not have to reduce the size of their business in order to survive. Thanks to all these factors combined, they are more prosperous. This in turn means that they can lend to each other informally, which also help in case of emergency. Thanks to their reputation mechanism, the community networks are thus able to establish a hold on certain segments of business that is virtually impregnable.

At the opposite end of the spectrum, firms that are not well connected or are caught in a less dense and wealthy network, are also less able to absorb shocks. Shocks hit them more heavily and propagate among other firms in the poorer network. As a result firms find it difficult to remain good paymasters and have a harder time establishing a good reputation. Firms can therefore form **expectations** about other firms' ability to be good paymasters based on the network to which they belong. Anticipation about poor repayment performance leads to little credit, little flexibility, and on aggregate poor repayment performance. Expectations and prejudice are self-fulfilling.

Trade credit also relies on the **legal enforcement** of contracts through courts and arbitrators. Legal enforcement is mostly used by larger firms to deal with large individual transactions; it offers little protection to small lenders. Often the threat of legal proceedings is sufficient to elicit repayment. The usefulness of legal enforcement thus goes well beyond solving a few contractual conflicts. In fact the legal system is most useful when it is **not** used, that is, when the simple threat of court action is sufficient to get a creditor his or her money back.

Trade credit is the major source of **flexibility** for those firms who have access to it. It is also, however, the major source of cash flow shocks: liquidity problems are typically triggered by bad payers. Flexibility in repayment terms therefore operates like a diffusion mechanism. Isolated events somewhere in the economy spread by contagion to upstream firms as they do not get paid, then possibly to other upstream or downstream firms as upstream firms request early payment from their

customers and delay payment to their suppliers. Provided that the shock not be too large, it is better absorbed by these firms operating jointly. Contractual flexibility therefore operates like a mutual insurance system between businesses.

Trade credit and the flexibility that it encompasses are based on sophisticated **information collection and exchange**. Business persons visit each others' work place and observe; they weigh each other's honesty and business qualities around a cup of tea; they ask each other for references; call up their friends; listen to gossip at community weddings and funerals; launch enquiries among each others' employees; and generally do anything they have to do, one hopes within the boundaries of gentleman behavior, to lay their hands on the information they need to do business. This is particularly true in trade because access to information is the only thing that really differentiates firm. But it is also critical in manufacturing, particularly when the production technology is easy to master and open to all.

Chapter 6. Effects on Investment and Policy Issues

The RPED surveys provide ample evidence of credit constraints, particularly affecting small and microenterprises. Many firms cannot get bank loans, and some do not even get supplier credit. These barriers to credit have an effect on investment in two ways: **directly** when firms cannot invest in profitable projects; and **indirectly** when they refrain from expanding to avoid running into liquidity problems. Both effects are present in the Kenyan data. In this chapter we review some the evidence we have collected on the effect of credit on investment and suggest new avenues for policy intervention.

Section 1. Barriers to Credit and the Effect on Investment

Panel data

Regression analysis conducted on the panel data reveals that many factors influence firms' decisions to invest. Two regressions undertaken by the University of Gothenburg are reproduced in Table 1. The first is a Probit regression in which the dependent variable is the decision to invest. The second is an OLS regression on the amount actually invested for those firms that did invest in 1992. Current profits divided by the firm's assets were added to the regression in an effort to capture liquidity effects on investment. A variety of dummies were constructed on the basis of respondents' answers to questions regarding access to credit, infrasctructure, business support services and investment benefits, as well as insufficient demand and price controls. These dummies were added to the regression to control for unobservable factors influencing investment.

Results show that firms that are smaller, older, managed by Kenyan-Africans, in the textile and metal sectors, and located in Nairobi are less likely to invest. Most of the dummies are significant and enter with the expected sign. The effect of profits on the decision to invest is significant but carries the wrong sign; its effect on the magnitude of the investment, however, is positive and significant. Firms that had listed credit as a major problems are shown less likely to invest but, if they invest, do invest more. Although not entirely conclusive, this analysis based on panel data nevertheless indicates that the decision and magnitude of investments are related to firms' financial situation and ability to access credit. A more direct line of enquiry was followed in the case study. To this we now turn.

Table 1. Regression of Investment on Firm Characteristics *(significance level in italics)*

	Probit on the decision to invest		OLS on amount invested if invested	
Intercept	3.343	***.0001***	-.389	*.1575*
Ethnicity of manager	-.649	***.0089***	.572	***.0028***
Number of workers	.001	***.0479***	.000	*.6449*
Age of firm	-.054	***.0001***	.000	*.9395*
Profits	-.474	***.0001***	.224	***.0484***
Textile sector dummy	-1.487	***.0001***	1.171	***.0001***
Wood sector dummy	2.011	***.0001***	.481	***.0050***
Food sector dummy	2.426	***.0001***	.441	*.1584*
Promotion/sales expend.	16.898	*.1428*	15.806	***.0001***
Importer dummy	-.479	*.0754*	.583	*.1259*
Prop. technical staff	-17.642	*.5014*	11.791	*.8042*
Limited liability status	-.003	*.9935*	.042	*.9039*
Nairobi dummy	-1.180	***.0001***	-.521	***.0059***
Credit problem dummy	-1.873	***.0001***	.683	***.0002***
Price control dummy	-2.938	***.0001***	-.418	*.7418*
Infrastructure problem dummy	.129	*.0565*	-.039	*.6058*
Demand problem dummy	-2.299	***.0001***	.083	*.7828*
Business support dummy	-.759	***.0001***	-.499	***.0009***
Investment benefits dummy	-1.490	*.0881*	1.438	*.4093*
Formal loan dummy	-1.481	***.0001***	-.215	*.5302*
Log-likelihood	-426.49			
Adjusted R-square			.7092	
Number of observations	*133*		*56*	

Source: University of Gothenburg, 1994

Case study data

Case study firms were asked to indicate whether they were ever unable to take advantage of an investment opportunity due to lack of finance. One third report that, at least once, they were

unable to incur a lumpy investment they though profitable because of lack of funds (Table 2). Kenyan-African firms are much more likely to be unable to invest than non Kenyan-African firms. A similar pattern can be discerned across firm sizes: small firms are more likely to face a credit constraint and less likely to invest. Yet the contrast between firms of different ethnic origin is starker than between firm sizes. Using probit analysis we did not find any significant relationship between firm characteristics and the ability to invest. A least square regression using the same variables nevertheless indicates that Kenyan-African and manufacturing firms are more likely to limit their investment because of credit constraints; other variables are not significant.

Table 2. Effects of Imperfect Credit on Investment and Cash Flow Problems

	All firms	Manufact. firms	Trade firms	Kenyan-African	Kenyan-Asian
% of firms ever unable to invest due to lack of finance	37%	41%	22%	82%	19%
Number of observations	*38*	*29*	*9*	*11*	*27*
% of firms ever in a difficult position due to cash flow problem	30%	41%	14%	44%	23%
Number of observations	*53*	*32*	*21*	*18*	*35*

Source: RPED Case Study Survey

Direct constraints on the ability to invest is only one part of the story, however. Discussions with respondents reveals that the willingness to invest depends on the investor's expected ability to deal with future liquidity shocks. Only one third of the surveyed firms was ever put in a difficult position as a result of a liquidity constraint (Table 2). Manufacturing firms are more vulnerable to liquidity problems than trading firms, presumably because working capital requirements are more complex in manufacturing than in trading. Kenyan-African businesses are again at a disadvantage: more have been put in a difficult position as a result of limited access to credit. A similar pattern exists across firm sizes, with small firms more likely to face problems, but it is not as marked as between ethnic groups. A Probit regressions indicates that ethnicity alone has a significant effect on the occurrence of difficulties as a result of liquidity problems (Table 3). Manufacturing firms are more likely to be in difficulty as a result of cash flow problems; older firms are more likely to be able to borrow for liquidity crises. Firm size has no significant independent effect.

Table 3. Probit Regression of Whether Firm Ever in Difficulty Due to Liquidity Problem *(significance level in italics)*

Log-lik. value	Const.	Ethnicity of manag.	Log. # workers	Manuf. dummy	Age of firm	Textile dummy	Wood dummy	Metal dummy
-19.020	-2.750	1.234	.159	1.637	-.048	.487	.976	1.608
.001	*.024*	***.056***	*.466*	***.017***	*.173*	*.556*	*.262*	***.061***

Source: RPED Case Study Survey -- 52 observations

Respondents were asked what strategies they rely on to avoid liquidity problems or to minimize their effect. Their answers reveal to what extent the fear of liquidity problems leads firms to willingly restrict investment (Table 4). A third of the firms insist that they overlook their liquidities carefully -- more among non Kenyan-African businesses, less among Kenyan-African businesses. Respondents associate liquidity problems with overextending themselves. Two-third of the firms declare limiting the size of the enterprise or cutting down on production as a way of avoiding liquidity problems. The firm's ability to cope with liquidity problems thus determines its capacity and desire to expand. The lack or paucity of risk sharing instruments limits firm expansion, prevent the full exploitation of gains from specialization, and reduce aggregate efficiency. Limiting credit to clients is an effective way of avoiding problems because, as discussions with respondents indicate, unpaid client bills are nearly always the trigger for a cash flow crunch. Not surprisingly therefore, Kenyan-African firms who are the least in a position to withstand a cash flow crunch are also those that rely most heavily on cash sales and advances from customers to minimize liquidity problems. Their unwillingness or inability to extend credit to customers, however, makes less competitive and reduces the size of their effective demand.

Table 4. Strategies to Avoid or Minimize Liquidity Problems *(multiple answers allowed)*

	All firms	Manufact. firms	Trade firms	Kenyan-African	Kenyan-Asian
Overlook liquidities carefully	31%	29%	33%	14%	41%
Limit production and purchases	65%	62%	71%	76%	59%
Limit credit to clients/insist on downpayment from client	45%	53%	33%	62%	35%
Use a buffer fund or open access to credit	18%	24%	10%	19%	18%
Reduce gross margin	22%	21%	24%	33%	15%
Other	7%	3%	14%	10%	6%
Number of observations	*55*	*34*	*21*	*21*	*34*

Source: RPED Case Study Survey

Two-thirds of the firms hold a 'buffer fund', that is, a certain financial reserve that they can use to deal with liquidity problems. The size of these reserves averages sixty percent of the firms' monthly liabilities. They take various forms, principally cash holdings and underdrawn overdraft. Alternative sources of income and personal assets also serve an important buffer role. When asked how they decided the level of their buffer fund, a third of the firms referred to their stock needs and the cost of money. Some firms declared that they had been unable to accumulate more than what they had, while a few wealthy individuals said they had more than they needed to deal with any emergency. A fifth of the firms also declared that whatever they treated as a buffer fund was in fact used for other business or personal purposes as well and varied over time. The fact that these alternative sources of income are somewhat uncorrelated with the business itself provided some insurance.

The link between trade credit, payment delays, and risk sharing is also brought out clearly in the data. It is mainly because Kenyan-African do not get as much access to supplier credit as other firms that they are more vulnerable to cash flow problems. A similar comment applies to firms too small to get access to overdraft facilities. Overcoming barriers to credit is thus a prerequisite for allocative efficiency in investment. It is necessary for Kenyan manufacturing to respond rapidly to structural adjustment and expanded export opportunities.

Section 2. Remedies and Scope for Policy Intervention

We now turn our attention to potential remedies to the inefficient distribution of enterprise credit. We argue that incremental institutional change can help reduce enforcement problems and improve access to credit. To identify what set of policy interventions may be appropriate, however, one has to specify the reasons why efficient institutional responses have not emerged in practice. To this task we turn first.

Why Institutions Do Not Emerge

The economic literature on institutions is split into two opposed camps: the neo-classical institutional economists who believe that efficient institutions arise naturally to respond to any transaction cost or information asymmetry; and the others who believe that they do not necessarily do so. Neo-classical institutional economics point out that individuals are typically aware of where their best interest lies. As a result, they are quick to exploit ways to improve their lot, whether in their production and consumption activities or in their contractual relations with others. Parties to a negotiated contract have a mutual interest in identifying the most efficient way of organizing their relationship. Even if, on their own, they may not be imaginative enough to find out what the optimal contract is, they promptly copy ideas concocted by the smartest among them. People and patterns of behavior that are inefficient are less profitable and quickly disappear as a result of economic competition. By this logic, economic systems and institutions are expected to quickly converge toward their evolutionary stable equilibrium.

Those who disagree with the neo-classical view give essentially three sets of reasons why institutions may fail to emerge that efficiently take care of transaction costs and information asymmetries: coordination failure; innovation failure; and authority failure. *Coordination failure* refers to the fact that in many cases an efficient institutional solution requires that economic agents

coordinate their actions. Although coordination may arise naturally, in many cases it does not. *Innovation failure* treats institutions like technology: just like medieval man did not discover the nuclear bomb, he did not invent credit rating systems. Institutional innovations invented in some places can be usefully transferred to others -- e.g., contract law, the credit card, the bill of lading. Of course, when attempting to introduce an institutional innovation elsewhere, one should be careful not to create havoc in whatever indigenous institutional setup is already in place.

Authority failure follows from the fact that decentralized self-enforcing mechanisms cannot rely on the coordinated use of force. Coercion requires the intervention of a central authority, typically the state. By putting that authority at the service of contracts, the state can achieve a level of contract enforcement that is out of the reach of informal mechanisms built upon the idea of reciprocity and repeated interaction (Benson (1990)). Furthermore, unlike perhaps medieval states under which the Law Merchant blossomed, modern states oppose themselves to groups who attempt to build coercive forces that can police the behavior of their members or influence others. Private militias and vigilante groups are illegal in most countries, and groups that try to enforce their own separate law through violence -- e.g., the Mafia -- are a threat to the state. Under these conditions, groups of merchants and entrepreneurs typically find it impossible to separately organize the use of force to sanction contracts.

Coordination Failure, Innovation, and Coercion: Examples

Several examples of coordination failure have been given in previous chapters. When certain categories of firms do not qualify for credit as a result of statistical discrimination, there is coordination failure. When firms fail to share information about bad payers even though they would all collectively benefit from having this information available, there is coordination failure. When certain financial instruments are not provided because the market for them is too small to justify the required investment, there may be coordination failure.

Innovation failure provides another possible explanation for the nonexistence of specialized markets and financial instruments. Before Milken thought of it, there was no market for junk bonds. Before someone thought of setting up the required financial infrastructure, there was no such thing as a stock exchange or a futures market. Before someone thought of credit reference, it did not exist. In all these cases, new institutions emerged as the result of an innovation process, much like new technologies are invented over time. One should not assume, like the neo-classical school does, that institutions and contracts automatically and instantaneously emerge in response to relative price changes. There is scope for improving Africa's institutions by borrowing ideas from other countries and cultures.

The role of state imposed coercion in supporting contract enforcement is central to most of the writing of North and his followers. Better courts and tribunals are needed to protect property rights and enforce private contracts (Benson (1990), Milgrom, North and Weingast (1990)). Registration and titling increase the collaterizability of land and vehicles and helps enforcing credit contracts. External auditing increases the verifiability of a firm's situation, thereby enlarging the range of enforceable contingent contracts including participation to a stock market. Reputation mechanisms are improved when disinformation is punished by the law. External verification and publication of critical events, like failing to pay a bill of exchange on time, favors the circulation of accurate

information and encourages firms to pay promptly in order to preserve their reputation. In all these cases, state intervention is able to achieve results that private parties cannot achieve on their own. The state, by putting its monopoly of the use of coercion to the service of private contracts, enables private parties to go beyond purely self-enforcing agreements and to expand the enforcement mechanisms they rely on.

Section 3. What Policies for Kenya

Policies to address some of the problems listed in the first section fall under two broad categories: those that seek to remove barriers to credit directly; and those that seek to redress their consequences. The rationale for the first category of policy action can be understood from Figure 3. If policies can be found that shift the barrier to trade credit T and the barrier to bank credit B to the left, then more firms will be able to invest, firm growth will be faster, adjustment more rapid, and industrialization accelerated in Kenya. The second category of policy action moves credit to the left in spite of the existence of barriers. It includes directed credit and other efforts to bypass barriers to credit. We first consider ways of shifting credit boundaries through policy action and projects. Through various types of institutional reform and legal improvements, policy can help reduce coordination failure, promote institutional innovation, and put state coercion at the service of private contracts.

Coordination Failure

Perhaps the best example of coordination failure in Kenya is the absence of a credit reference bureau. Information about bad payers is not shared among firms. As a result, firms are less able to identify bad payers from good payers and less inclined to give credit. The absence of an information sharing mechanism makes it particularly difficult for new firms to gain access to credit. Indeed they must establish a credit repayment history with each potential source of credit individually. Established firms also find it difficult to shift their activities to respond to changes in relative prices because, in the absence of information sharing, dealing with new suppliers requires establishing a credit history with them directly.

Subsets of the Kenyan-Asian business community have managed to overcome these limitations by establishing reputation mechanisms among themselves. Information about business behavior and debt repayment is exchanged between businessmen. One should be careful, however, not to assume that all of Kenya's 80,000 strong Asian population shares business information. Reputation remains largely confined within small business communities -- the Patels, the Shahs, the Sikhs, the Ismaelians, to name a few. These communities distrust each other about as much as they distrust non-Asians. There is therefore considerable scope for improving the circulation of information even between Kenyan-Asian businesses.

To our surprise we were unable to uncover reputation mechanisms at work within the Kenyan-African business community, along ethnic lines or otherwise.[26] We may have missed them

[26]African traders' network were indeed clearly apparent during our work in Ghana.

because in Nairobi the four sectors of economic activity on which RPED focuses its research happen to be dominated by Kenyan-Asians.[27] At any rate, Kenyan-African firms in these four sectors at least are at a clear disadvantage in terms of access to supplier credit because information about their credit repayment history does not currently cross ethnic boundaries. Because good Kenyan-African businesses cannot rapidly and costlessly differentiate themselves from bad ones, they are statistically discriminated against in terms of access to credit. There is a coordination failure in information dissemination.

A private firm, Credit Reference Kenya, is currently attempting to overcome this coordination failure by pooling business credit histories from various sources onto a computer data bank, and making the information available to its customers in convenient form. It is, however, experiencing serious difficulties as firms reluctantly relinquish information that could help their competitors without knowing if they will receive similar information from them. Banks in particular are unwilling to share information about bounced checks and bills of exchange. The same is true for credit card companies and hire-purchase firms. All have their own credit history data bank that they will not give away without assurances that others will do the same. Indeed, in a world of imperfect information, credit histories constitute an important asset on which credit suppliers of all kinds base their business. Unless all agree to share information, no one will, at least until the credit reference data bank is large enough that the participation of a single major player would not give a competitive edge to its competitors. There is therefore a role for policy to help coordinate action and favor the establishment of a critical mass of credit information. This could perhaps be achieved if the efforts of Kenya Industrial Estate to establish a data base on the credit history of its own customers is coordinated with private efforts to establish a credit reference service in Kenya.

Institutional Innovations

Just as one does not expect Kenyan firms to know how to make computer chips simply because they are manufactured elsewhere, one should not assume that institutional innovations introduced elsewhere are instantaneously transferred to Kenya. The establishment of computerized credit reference services is one example of an institutional innovation that is not immediately transferable because of coordination problems. There are many examples of policy interventions in Kenya and elsewhere whose success, hypothetical or real, rests on institutional innovation. We focus on a few.

Developing a computerized credit history for firms that have received credit from Kenya Industrial Estates and other lenders to micro and small enterprises is one of them. Irrespective of whether that information is shared with other lenders, as has been suggested, computerization is an innovation that enables a lender to keep track of thousands of credit histories and therefore to use more effectively the information at its disposal. By enabling small firms to establish a credit repayment history, computerization helps good payers get access to more credit (Tomecko and Aleke-Dondo (1992)).

[27]See for instance Macharia (1988).

Group lending is a relatively recent addition to the panoply of credit instruments promoted in Kenya and elsewhere in the Third World. Its success as an effective way of channelling credit to firms who otherwise would not get it relies on the ability of the group to help **enforce** repayment by one of its members. Group lending is thus an contract enforcement innovation. Viewed in this light, group lending is most effective if it generates incentives on the group to put pressure on delinquent members, if group members have some leverage on other members, and if it is not in the interest of the group to defect collectively. From the conversations we had in Kenya with various organizations (banks, NGOs, projects) involved in group lending, it appears that the most successful programs are those that stagger credit to members over time. As a result, those who are becoming eligible for credit have an incentive to put pressure on delinquent members, and the group as a whole finds it difficult to collude to default. The ability of group members to put pressure on others, however, is problematic, especially in groups that were formed exclusively to receive credit. The cost of keeping the group together is high. This is hardly surprising given that, in order to provide incentives for repayment, one has to create antagonistic relations between group members. The disbursement of large amounts of money through group lending therefore requires large investments in group formation and maintenance. For this reason, group lending is costly if attempted on a large scale. It may not even be possible as many potential recipients of credit refuse to join groups and to get embroiled in other people's affairs and problems.

Credit guarantee is an even more recent institutional innovation in Kenya. The idea is for an outside party (donor, government agency) to partially guarantee a supplier of credit against default. A special fund is created whose purpose is to compensate a supplier of credit who faces default. Such a program has been financed by USAID to incite the Commercial Bank of Kenya to extend credit to special target groups. A similar program has been suggested to protect suppliers of goods who extend credit to their clients. It is too early to judge the success of such attempts, but it depends on whether lenders prefer to collect the insurance premium without spending much effort collecting from their delinquent clients, or to bear the full cost of screening, monitoring, and recovery. If the cost of recovery is higher than the risk borne by the lender, no effort to recover will take place and the guarantee fund will be rapidly depleted. Credit guarantee does nothing to increase debtors' willingness to repay. It only reduces the lender's risk in trying out new borrowers. It constitutes a possible avenue out of statistical discrimination by providing good borrowers an opportunity to prove themselves that is denied when the lender has to assume all the risk.

Hire-purchase can be considered an institutional innovation as well. According to some of the respondents, hire-purchase is a rapidly growing form of credit in Kenya, especially for vehicles, and to some extent for consumer durables. Hopefully it will expand to include equipment and machinery as well. What is innovative about hire-purchase is that it relies on the collaterizability of moveable assets. Because the lender remains owner of the good until full payment, the good can be repossessed from the delinquent debtor without having to resort to court action. A new avenue for credit is thus created through the establishment of an alternative enforcement procedure.

A similar idea is behind the ressuscitation of chattel mortgages by the Kenyan Industrial Estate. The idea behind the chattel mortgage is similar to that behind hire-purchase, namely, to make a piece of movable property directly responsible for servicing a debt. The difference with hire-purchase is that in a chattel mortgage the lender is not the owner of the property. Repossession of

a chattel in case of loan delinquency involves simplified procedures that are less costly than for unsecured loans. Chattel mortgages have enabled many micro and small firms to receive credit from KIE using their equipment as collateral (Tomeko and Aleke-Dondo (1992)).

The collateral value of equipment and machinery currently suffers from thin, unorganized markets for used capital. The absence of registration for items other than vehicles also introduces an element of uncertainty in equipment transactions. A dishonest debtor may be tempted to evade contractual obligations by liquidating the firm's equipment. If buyers cannot easily verify if a piece of property is free of lien, the market for second-hand equipment may suffer. The solution is to set up a registry of industrial machinery and equipment and to develop a market for auctioned equipment. These actions would increase the collateral value of equipment and improve access to credit for small and medium manufacturing firms in Kenya.

State Coercion at the Service of Private Contracts

The key feature that differentiates the state from private agents is its monopoly on the use of public force. The state can help decrease barriers to credit by putting public force at the service of contract enforcement. To do so effectively, public force must be harnessed at reasonable cost to private agents. Currently the use of courts and tribunals in Kenya is too costly for most commercial contractual disputes. The attractiveness of hire-purchase and chattel mortgage is precisely that they bypass the need for full fledged court proceedings. The usefulness of Kenyan courts could be increased by setting up small claims courts in which lawyers are not admitted. Specialized courts for business disputes could also be envisaged.

The state can also help contract enforcement by assisting informal mechanisms. The sharing of information on credit repayment, for instance, is an essential ingredient of any reputation mechanism. The state can favor the circulation of information by assisting the establishment of private or public credit reference services. The state should encourage collaboration, in whatever form, between private credit reference companies like Credit Reference Kenya, government agencies like KIE, the Kenyan Firm Registration Office, private and public banks, credit card agencies, and hire-purchase companies. By pooling their information together, the coordination failure can be overcome. The official registration of chattel mortgages and hire-purchase contracts on equipment and machinery could also be envisaged. This would be far cheaper than registering all equipment and machinery. Finally, the government could help set up an auction market for used equipment through which all repossessed items could be liquidated.

Directed Credit

Although highly desirable, policies striving to eliminate barriers to credit are unlikely to be fully successful. Directed credit may remain necessary (Cho and Hellman (1993)). The difficulty, however, is that any credit program, directed or not, is bound to run out of funds if sufficient care is not given to contract enforcement issues. Many directed credit programs turn out to operate as welfare transfers: when loans become due, default rates rise, and funds are no longer replenished. As a result, most directed credit programs are short-lived. Moreover, they constitute an ineffective form of welfare transfer since they fail to reach the neediest. Because they hesitate to seek loan repayment

from their target population, they favor the emergence of dishonesty and cynicism among those who would most benefit from establishing their credit worthiness.

Directed credit must therefore rely on innovative contract enforcement mechanisms, whether group lending, credit guarantee schemes, hire-purchase, computerization of credit histories, and chattel mortgages. The approach currently adopted by the Kenya Industrial Estates, as we understand it, espouses many of these innovations. It should be encouraged and imitated. Credit programs that entertain a naive attitude toward credit repayment should be discouraged. Political interventions to protect delinquent debtors beyond reason should be avoided.

Conclusion

This report has taken a fresh look at enterprise finance in a representative Sub-Saharan country, Kenya. The picture that emerges is a rich and yet simple one. Variations in enterprise finance are largely dictated by contract enforcement issues. Limited contract enforcement creates barriers to credit and insurance. Barriers to credit and insurance stifle investment and slow economic adjustment to changes in relative prices and export opportunities. Correcting the situation requires that contract enforcement mechanisms be improved.

By looking at enterprise finance from the point of view of firms, several areas of scientific enquiry and policy intervention that are typically ignored have come to the forefront: trade credit, hire-purchase and chattel mortgages, bank overdraft facilities, credit reference and other information sharing mechanisms. We have shown how trade credit flows from large firms to small and medium firms and is irrigated by bank overdrafts. We have demonstrated how important access to instant credit and repayment flexibility are as a source of insurance against liquidity shocks. We have documented the plight of microenterprises which are rationed out even of trade credit and must rely on advances from customers. We have discussed in detail why Kenyan-Asian businesses find it difficult to lend to Kenyan-African firms and we have made suggestions to remedy the situation through a better circulation of information on credit repayment history.

The situation of enterprise finance in Kenya, although not satisfactory, is far from desperate. The channels through which funds can be directed to enterprises are diverse. Bank loans and overdrafts to large firms translate into trade credit to small and medium ones. Loans to finance companies go into hire-purchase and instant credit against liquidity shocks. Firms are familiar with a variety of credit instruments, like bills of exchange, but shy away from bill discounting whenever the interest rates prevalent in the country become too high, as was the case when we visited Kenya in September 1993. Post-dated checks are commonly used and could serve as a basis for a discount curb market should the economy pick up and credit history information circulate more freely. In a way then Kenya appears poised for action.

Microenterprises, especially those headed by Kenyan-Africans, constitute an exception to this encouraging picture. Their access to credit is seriously restricted and their growth and ability to survive liquidity shocks impeded. We propose several measures that should over time grant them better access and help some of them emerge as major players in the Kenyan manufacturing sector.

Chapter 7. Credit Relationships and the Enforcement of Contracts

We now examine how credit relationships are established and contract enforced. First we consider the extent to which firms rely of socialization to maintain or secure access to credit. The establishment of trade credit relationships is the next focus. Then we look as repayment problems and how they are handled. Finally we explore the frequency with which firms experience contract enforcement problems and how they avoid them. The use that firms make of legal enforcement mechanisms is analyzed at the end. Unless specified, the results presented here are based on the case study survey.

Section 1. Socialization With Potential Sources of Credit

Banks

Most surveyed firms deal with their bank in an anonymous way (Table 32 in Appendix). Some, however, cultivate good relations with their branch manager and staff, occasionally meeting them outside business. Kenyan-African businesses are much less likely to consider bank staff as business acquaintances than non Kenyan-African businesses, but a quarter of them actually met bank staff outside business. Discussions with respondents indicate that these Kenyan-African businesses, a minority to be sure, happen to be well connected with their bank staff. The relationship is seldom based on past business acquaintance. Rather, the branch manager happens to be a family friend, a former schoolmate, a neighbor. As a result of their fortunate personal connection, these businesses could secure easy access to bank credit, small sums being disbursed virtually instantly, often bypassing bank procedures regarding collateral. The amounts lent, however, remained small because branch managers must report to headquarters all loans above a certain limit. The benefits firms can derive from such acquaintances is also short-lived, as branch managers are rotated among various branches -- probably to limit this kind of behavior. One should add, however, that in all cases we encountered, the loans were repaid promptly.

None of the Kenyan-Asian businesses we spoke to was personally acquainted with bank staff, but several felt they could rely for emergency loans on members of their community who staff non-bank finance companies. One went even as far as explaining to us the workings of 'black money', a secretive financial market in which the managers of banks and financial institutions and other well connected individuals take private deposits and organize private loans for privileged customers. These loans are extremely flexible and are made without any security or collateral other than the knowledge of the lender's business that the lender has acquired through normal business transactions.

Informal Sources of Credit

Informal sources of credit potentially play an important role in a firms' ability to withstand liquidity shocks. Respondents often became emotional when recalling past experiences during which the firm was salvaged by a friend's loan. When asked specifically to describe their relationship with potential sources of informal credit, respondents overwhelmingly cited friends and relatives (Table 32 in Appendix). A sixth of them also cited parent companies. One fourth, however, cited simple

business acquaintances or members of the same community. Being part of a wealthy family with diverse business interests and good connections to a prosperous community is an important asset because it provides a much needed insurance cushion against business risk. For that reason the prosperity achieved by an ethnic communities tends to reinforce itself over time.

Suppliers

Two-third of the surveyed firms have a relationship with their supplier that transcends anonymity (Table 32 in Appendix). One third of them pay each other business visits and take an occasional lunch or tea together. Another third meet in the community or are ever better acquainted. Half the firms meet their suppliers personally either occasionally or frequently, on average every five months. Two-third of Kenyan-African businesses, however, never meet their suppliers and do not know them other than by name, against only one sixth of the non Kenyan-African businesses. None of the Kenyan-African businesses meet their suppliers in the community, against two-fifths of the non Kenyan-African businesses. Acquaintance with suppliers shows no clear relationship with firm size, except that large firms seem more likely to deal with each other in an anonymous fashion. Traders as a rule are better acquainted with their suppliers than manufacturers.

Other indicators of acquaintance among firms by and large confirm this picture. Half of the suppliers know the location of the owner's residence -- one fourth only for Kenyan-African businesses. Suppliers of two-third of the firms would know of major events affecting their customer, often through the community or from other businesses. Although manufacturers are less personally acquainted with their suppliers, they nevertheless know more about their suppliers and vice versa than traders. Kenyan-African businesses as rule know less about their suppliers and their supplies know less about them than their non Kenyan-African counterparts. They are particularly mutually ignorant of details that are not directly observable through casual visits, like private residence, profit, and major events affecting each other's business.

Section 2. The Establishment of Trade Credit Relationships

With Suppliers

The major strategy for establishing trade credit with suppliers is through repeated interaction (Table 33 in Appendix). Two-fifths of the surveyed case study firms first buy goods on cash for a while before qualifying for trade credit from their suppliers. This process is lengthy and has to be repeated for each individual supplier. Three-fifths of the firms, however, use personal contacts, credit acquaintances, and business reputation to secure trade credit from the start. The ability to secure trade credit from the start significantly facilitates launching a new business. One of the surveyed firms, for instance, was a newly established food wholesale business. Thanks to previous acquaintance with suppliers, the respondent was able to fill his store with suppliers' goods from the very first day of operation. Similar stories were told many other respondents. Immediate access to trade credit enables firms to leverage their initial capital and instantly achieve a viable size. Nearly eighty percent of Kenyan-African businesses had to buy cash for a while before qualifying for trade credit (Table 35 in Appendix). Only one fifth of them got credit from the start, none used mutual contacts. On the other hand only one fourth of non Kenyan-African businesses had to buy cash for a while. The is no

strong relationship between firm size and access to trade credit, except perhaps that very large firms get credit from the start on account of their large size and bureaucratic procedures.

Three-fourth of the respondents state that they establish their reputation with suppliers by being a good paymaster. Most specified that a good reputation has to be established with each supplier individually. More than half of the surveyed firms believe their suppliers do not exchange information about their payment record and that delaying payment to one of the suppliers does not affect their reputation with other suppliers. The other half perceive themselves as establishing a track record within their business community. Of the 7 Kenyan-African business person who answered that question, 6 said their suppliers do not exchange information about them; by contrast, two-third of the 15 non Kenyan-African business person who answered the question stressed that their suppliers do exchange information about their payment record. Reputation looms larger among non Kenyan-African than among Kenyan-African businesses.

With Customers

The relationship with clients receiving trade credit from the firm is virtually always business only (Table 16 in Appendix). Only 8 panel firms cite family and friends, mostly traders, as credit customers. Only 16 percent of clients are from the same ethnic group. The average length of the business relation is 9.7 years. It is slightly shorter with private end users, 6.5 years, than with private traders, 11.5 years. Similarly, of 53 cases of sales with advance payment reported by panel firms, 3 occurred with family and friends. Only 4 transactions were with people of the same ethnic background. In 76 percent of the cases, however, the client was already known to the seller. The average length of this relationship was 3 years.

Two-thirds of the case study firms describe a creditworthy customer as someone with whom they have had a long and successful business relation (Table 34 in Appendix). One fourth of the firms associates creditworthiness with a good reputation among others -- e.g., other suppliers, community members, etc. One firm out of ten mentions previous acquaintance, but not necessarily as a customer. Firms have various strategies to collect information about potential recipients of trade credit. They can be grouped into four categories: direct observation; asking around; repeated interaction; and previous acquaintance. Direct observation is practiced in various forms. Some respondents physically visit their client's business and, in the course of the conversation, observe how well their client is doing. They note how he or she is dealing with customers and workers, the quality and amount of goods in stock, the rapidity with which inventories circulate, etc. Others rely on their ability to judge a man through interview. One respondent, for instance, said he could judge a man's creditworthiness by how he bargained. If the customer was willing to settle for too high a price, he would suspect either that the client was not serious about repayment, or that he knew little about the business and was unlikely to sell the items. Either way, the respondent concluded that credit should not be given[28]. A few firms rely on their client's wealth and consumption pattern as indicators of their ability to repay.

Respondents ask information about a potential debtor from various sources. Some firms ask the client to provide the names of people who can recommend them. References must preferably be

[28]This particular example is close to close to the formalization of credit rationing by Stiglitz and Weiss (1981).

among people known to the respondent. Most, however, operate in a less direct and inquisitive way. They prefer to accept the client's order and enquire with their friends over the phone after the client has left. If they receive a bad report, they subsequently use some excuse to turn the client down for credit. Of course no one is dupe. Calling friends and business contacts is most often practices to screen 'upcountry' customers, that is, customers who do not reside in Nairobi and whose business the respondent finds costly to visit. In a few cases we were surprised to hear that respondents exchange client related information with competing suppliers. In a couple of textile firms, respondents even said they meet regularly with other suppliers and discuss late payers and defaulters, thereby constituting what could be called an information sharing cartel. That firms which otherwise compete for the same clients can agree to share such strategic information serves as a reminder of the critical importance of information sharing to prevent and discourage contract non-compliance.

One fifth of the firms seek information from the client's bank as well. Banker's opinions tell how the client is dealing with his or her bank and often state for how much their client is 'good', that is, for how much credit they can be reasonably counted on. Their main drawback is that they take a few weeks to come. The client may not accept to wait for that long before finding out whether the respondent accepts his or her order. The contrast between firms again confirms that Kenyan-African businesses have fewer business contacts from which they can obtain information about potential recipients of trade credit (Table 35 in Appendix). They are much more likely to rely on direct inspection of their client's business. Large firms are also more likely to ask around than small firms.

Repeated interaction with the client is another, more personalized way of establishing a trade credit relationship. The creditworthiness of a potential debtor is assessed through his or her past record with the respondent. The regularity and quantity of purchases, the business attitude, the reliability of check payments are all factors that are taken into consideration. The most pressing concern of the trade creditor is whether the debtor is a genuine going concern or a fly-by-night operator. Typically small loans are given first and the promptitude with which they are repaid is evaluated before larger, more regular trade loans are granted. The whole process takes several months. A quarter of the firms also mention previous acquaintance as a mean of assessing a client. Although family relationship or friendship are cited by a few firms, most others refer to previous business acquaintance. Several respondents, for instance, gave credit to clients who were previously working as employees or partners in businesses they were supplying to. A few firms confessed they had no screening process whatsoever; they just take the chance. Some firms cited taking guarantees as a way of assessing truthfulness. Four firms explicitly saw requesting advances from customers as a way of asserting the seriousness of the client's intent.

The source of the information influences how it is evaluated. Respondents trust more information that was cross-checked, and information that comes from people they know or regard as impartial, like banks for instance. Those who can cross-check the information received usually do, especially if they are unsure about their source. Some respondents are unable to cross-check, however; they must either rely on direct observation or trust their single information source. A few respondents were willing to elaborate further on the credibility of their sources. They see information exchange as a quid-pro-quo. Information sources who deliberately circulate false information hurt their reputation in the community. Credibility is but another aspect of reputation.

Section 3. Repayment Problems

With Banks

Two-third of the firms cite ever having difficulties repaying their bank (Table 36 in Appendix). A Probit analysis indicates that there are no significant differences among firm categories (Table 54 in Appendix). Respondents estimate that they could delay payment by about one month without incurring any major sanction. Beyond that delay banks start sending lawyers' letters and other reminders and charge financial penalties unless the firm gets in touch with the branch manager to explain its situation. Discussions with bank staff confirm that banks typically wait for a month before sending nasty letters. If no response to those letters is received from the debtor within another month or so, the file is transferred to the bank's lawyers. Most debtors, however, contact the bank before then and explain their problems. Two-third of the surveyed firms who experienced repayment problems said that their bank is accommodating provided it can be convinced that their client's difficulties are genuine and temporary.

With Informal Lenders and Personal Loans to Friends

Seventy percent of the firms having taken loans from informal lenders experienced problems repaying them (Table 37 in Appendix). They estimated they could delay repayment by up to nine months without incurring sanctions. Only a third of them said they would face harassment if they failed to repay within that time frame. The others claimed they would face no sanction, the debt would be forgiven. The lender's willingness to wait in all cases depended on the respondent's predicament. Two-thirds of the informal lenders, however, made an independent assessment of the respondent's situation by visiting their business and making their own observations.

A little less than half the surveyed firms recognized making occasional loans to friends for an average duration of one month (Table 38 in Appendix). Half of them experienced problems recovering their money. A Probit regression indicates that there is no significant relationship between the likelihood of encountering problems collecting from friends and firm characteristics. The number of observations, however, is small. Respondents are willing to wait up to nine months or more for payment. Half of them would forgive their friend's debt if repayment is not forthcoming; the other half would seek to recover their money by reminders and legal means. One respondent stated she would never lend money to a friend: she would loose both her friend and the money.

With Trade Credit From Suppliers

Ninety percent of the surveyed firms have ever experienced difficulties repaying suppliers (Tables 40 and 43 in Appendix). They estimate that they can delay payment for one month without incurring sanctions. On average they can stretch repayment to suppliers about three times a year. More than half the firms seek a direct contact with their supplier whenever they are unable to make one of their payments on time. A fourth of the surveyed firms decide unilaterally when to repay and wait for their supplier to call them up. Those few firms that have given post-dated checks or bills of exchange to their suppliers must plead with them to delay presenting them for payment. This is particularly delicate with bills because they can be discounted and are normally collected by banks. Probit analysis indicates that there are no noticeable differences in repayment difficulties between firm

categories (Table 54 in Appendix). The only exception is that textile and garment firms are significantly more likely to experience problems, a possible reflection of the difficulties encountered in that sector as a result of trade liberalization and competition from imported second-hand clothing.

The great majority of suppliers do not attempt to verify the excuse the respondents gives them to delay payment. The most suppliers do is to use their knowledge of general business conditions to assess whether delayed payment is out of line or not with the general situation faced by other firms. Suppliers thus use **relative performance evaluation**: to assess the difficulties faced by their client, they rely on common knowledge information that is correlated with the hidden shock affecting their client. A few respondents volunteer evidence to their suppliers whenever available -- like a bounced check from one of their customers, for instance. There is a clear implicit understanding that repeated delays hurt the relationship with the supplier. A firm's past payment history influences how compassionate and responsive suppliers are to a firm's payment problems. If past payments have been regular, an occasional delay is accepted without question. If several payments suffer unusual delays, however, the firm is less likely to be given the benefit of the doubt. The supplier's trust is eroded and the firm's reputation will suffer. In most cases, the fear of loosing the supplier-creditor's trust and of damaging one's reputation in the community is sufficient to guarantee repayment. Repeated interaction thus substitutes for gathering costly information on the idiosyncratic shocks affecting the debtor.

In the great majority of cases, there is no explicit guarantee for repayment. In the panel survey, responses on a question regarding sanctions for non-repayment vary a lot depending on how respondent understood the question (Table 39 in Appendix). One third of panel firms cite legal action as the most likely sanction and six percent cite contractual penalties. Another third cite interruption in credit or deliveries. Only 13 percent cite benign forms of forgiveness as possibilities. Case study interviews were more detailed (Table 40 in Appendix). They show that the most likely sanction firms incur if they delay beyond reason is the suspension of credit or deliveries. In other words, the primary punishment is to reduce or cut trade credit. Only a few firms cited penalties and legal sanctions as likely sanctions. A couple mentioned debt forgiveness. Detailed discussions with respondents indicate that suppliers' sanctions are subtle and progressive. Suppliers appear to have a preference ordering of their clients that gets revised on the basis of the performance of each. Best deals -- timely deliveries, preferential access to hard-to-get items, etc -- are offered to those clients highest in the ranking. Bad payers have lower priority and won't get anything if the firm has insufficient stock to satisfy the market. A client who has completely fallen out of favor will not be able to place an order and will be politely be turned down, usually on the pretext that the supplier is out of stock. We could not help thinking that certain suppliers, particularly those with market power, deliberately set their selling price just low enough so as to ration their output, then use rationing to discipline their clients.

The overwhelming majority of firms said that the supplier's willingness to wait depends on the respondent's situation. Half of the suppliers, however, have no way of verifying what they are told. Some use their knowledge of general business conditions, others observe the respondent's business by themselves, a few exchange information with other businesses. The attitude of respondents during this part of the interview -- giggles, smiles, rolling eyes -- suggests that most respondents actually play games with their suppliers and use delayed payment as an easy access to cheap credit. The more

outspoken respondents actually told us so quite plainly. Everybody knows the nature of the game and no one takes payment delays seriously unless they go beyond what is considered acceptable.

With Trade Credit to Clients

Virtually all the firms that give credit to their clients experience some problems recovering their money (Table 41 in Appendix). The allowed delay goes up to four months. When asked how they would react to non-payment, 58 percent of the panel respondents mentioned legal action as the most likely response to non-payment (Table 42 in Appendix). Interruption or credit and deliveries were cited by 18 percent of the firms. Only 16 firms out of 140 mentioned some form of forgiveness as the most likely sanction. The responses of case study firms to the same question were more nuanced (Table 41 in Appendix). The most common reaction is to harass and threaten bad payers. Harassment methods are adapted to circumstances. One respondent, for instance, reported sending their collection agent to debtors at opening time because, in the Hindu tradition, it is bad omen to be asked for money first thing in the morning. Half the firms also stop credit and deliveries. Most firms declare that their willingness to wait depends on the situation of the debtor. A quarter of the firms use their past experience with the debtor as a basis for evaluation. Some visit their client or observe his consumption pattern. Half the firms are informed by others or know the client intimately because he or she has a neighboring business or is a family member. Respondents seem to find out more about their customers than they think their suppliers know about them. A third of them cannot, however, judge whether the excuse made by the client is founded or not. This is particularly true with 'upcountry' clients whose business is located too far to allow a visual assessment of their situation. It is therefore little surprise that the bad repayment record of upcountry customers is a frequent object of complaint.

Section 4. The Enforcement of Commercial Contracts

Orders and Deliveries from Suppliers

Three quarters of the firms place in total an average of 75 orders with their suppliers every months. Trading firms and non Kenyan-African firms are more likely to place orders than manufacturing and Kenyan-African firms (Table 43 in Appendix). Half the firms ever faced non-delivery, partial or complete (Table 46 in Appendix). The percentage was higher with non Kenyan-African and trading firms. The median frequency of non-deliveries is one every five months; the average time elapsed since the last occurrence is 7 months. Very few cases involve imports; a third of them involve public firms. This is partly a reflection of how few direct imports and public suppliers respondent firms deal with. In two third of the cases partial delivery was made. The most common reasons for non-delivery is that the supplier was unable to find suitable inputs and that the supplier had insufficient capacity to satisfy all customers (Tables 45 and 46 in Appendix). In a few cases, orders were not canceled by the supplier when cost conditions changed dramatically and prices went up. In two third of the cases, respondents reacted by either waiting or ordering from somewhere else. Only a few bothered to insist on the fulfillment of the contract.

Two-third of the firms ever experienced late delivery -- more among trading and non Kenyan-African firms since they are more likely to place orders (Tables 43, 44 and 46 in Appendix). Two-fifth

of the panel firms faced an average of 18 cases (median 5) of late delivery in the year preceding the interview. Late delivery afflicts large firms two and a half times more than small firms. The median frequency of late delivery among case study firms is once every three months; the average time elapsed since the last occurrence is 4 months. The average delay is 20 days. Few imports or public firms were involved. Pre-payment was made only in one fifth of the cases. The most common reasons for late delivery was that the supplier was unable to find the inputs or was delayed by transportation problems. In most cases the respondent simply waited for the goods to show up; in one third of the cases, they complained and reminded the supplier. Similar results, although less precise results, are given by the panel survey.

Virtually all firms have faced deficient quality at one time or another, irrespective of firm category (Tables 43, 44 and 46 in Appendix). The median frequency of occurrence is once every five months. Two-fifth of the panel firms faced an average of 10 cases (median 3) of deficient quality over the year preceding the interview. Deficient quality afflicts large firms seventy percent more than small firms. An advantage of supplier credit is that it enables the client to verify the goods before payment. The credit relationship thus helps enforce quality because the client can threaten to hold up payment until the problem is solved. In forty percent of the cases, however, payment was made before discovering the defect. Half the respondents attributed the deficient quality to normal manufacturing or handling defect. More than one third of the firms, however, estimated that the supplier had made a mistake or had been careless or dishonest. Two-third of the respondent were able to exchange the goods; a few got a refund. A fifth of the firms, however, had to take a loss. These often were small, cash buying firms.

The most recent problem respondents had to face was mostly one of deficient quality (Table 47 in Appendix). Late delivery came second. In the panel survey, the problematic supplier was most likely to be a firm. The supplier was never a relative or friend, and in six percent of the cases only did the problem occur with a new supplier. The average length of acquaintance was 10 years (median 8). Bargaining was used in two thirds of the cases. In two thirds of the cases the dispute was settled. For those settled cases, 86 percent of the respondents were satisfied. Nearly all respondents resumed business with the supplier after the event. In the case study, the supplier was mostly a large manufacturer, seldom the sole source of supply, never a friend or relative, a third of the time from the same ethnic group. In the overwhelming majority of the cases, the respondent had dealt with that supplier before, on average for 11 years. In two-third of the cases, the problem was solved through direct negotiations with the supplier. In virtually all cases respondents were still doing business with that supplier. Only three-quarters of them declared themselves satisfied of the outcome; in a few cases the problem was still pending. Recourse to courts and police was extremely rare. Ten panel respondents changed supplier after the event.

Payment from Customers

The surveyed firms make around 235 sales per month. One third of the panel firms faced an average of 3.5 cases (median 2) of non-payment (Table 48 in Appendix). Interviewed more thoroughly, two-thirds of the case study firms ever experienced non-payment (Table 50 in Appendix). In both surveys, the percentage of firms with non-payment is higher among large firms, probably because they sell more and are therefore more likely to ever have experienced non-payment (Tables

43 and 48 in Appendix). It is also higher among non Kenyan-African firms, probably because they are more likely to sell on credit than Kenyan-African firms. The median frequency of non-payment is once every 10 months, or roughly one sale in every 2350, a surprisingly low non-payment rate. The average time elapsed since the last occurrence is 20 months. Full delivery was made in virtually all cases. Partial payment was made in two-third of the cases. A bounced check was involved in one third of the cases. The most frequent reason for non-payment was that the client experienced various financial and personal difficulties (Tables 49 and 50 in Appendix). In forty percent of the cases, however, respondents attributed non-payment to dishonesty or carelessness. A third of the respondents simply waited for the client to come and pay. The other were more active. Most complained and insisted on prompt payment. Some accepted to reschedule repayment. Those who hold the client's goods as guarantee (e.g., tailors who receive material from their client) eventually sold them.

Most firms ever experienced late payment by their customers (Tables 48 and 50 in Appendix). Two third of the panel firms faced an average of 10 cases (median 10) of late payment in the year preceding the interview. The incidence of late payment is among panel firms higher for medium and large firms. In the case study sample, manufacturers are more likely to report late payment than traders. The median frequency of occurrence is once every six months. The average time elapsed since the last occurrence is 11 months. The average length of the delay is five months. In most cases final delivery and partial payment were made. Only one case out of ten involved a bounced check. Again the most frequently cited reason for delay was that the client experienced financial difficulties. A number of cases was nevertheless attributed to carelessness or dishonesty, or to the client's need to travel. In half the cases the respondents simply waited for the client to show up; others insisted on prompt payment or explicitly renegotiated payment terms.

In the case of the panel survey, the problematic client was most likely to be a firm (Table 49 in Appendix). The percentage of problems occurring with people from the same ethnic group was not significantly different from the proportion of trade credit recipients from the same ethnic group. Only in one fifth of the cases was it the first transaction. Direct bargaining was used in 72 percent of the cases. The problem was resolved in the overwhelming majority of cases, and business was resumed in a little less than half the cases. The most recent problem case study respondent had to face was one of late payment involving either a small trader or a individual final consumer (Table 47 in Appendix). In nearly half the cases the respondent and the client were of the same ethnic group. It seldom was their first transaction together; on average they had been dealing with each other for over five years. One third of the respondent simply waited. Sixty percent of them negotiated directly with the client. A few brought the matter to a lawyer or arbitrator. In two-third of the cases in all firm categories the problem could be solved satisfactorily and the parties resumed business. In most cases, however, the client no longer qualified for credit.

Avoidance of Problems With Suppliers and Clients

The method most firms use to avoid or minimize problems with suppliers is to inspect goods at delivery and give precise orders well in advance (Table 51 in Appendix). Firms prefer to deal with suppliers they have had no problem with in the past, or place their orders on the basis of reputation or brand name. Firms also cultivate good relationships with their suppliers through business lunches

and visits, and by paying them on time. Formal proofs and procedures were hardly ever cited. Kenyan-African firms are much numerous in citing repeated interaction, reputation, and good relations as ways of avoiding problems, but there is otherwise little systematic relationship between firm category and strategies for avoiding problems (Table 52 in Appendix).

The most effective way of avoiding problems with clients is to insist on complete payment upon delivery (Table 51 in Appendix). Better still, one can ask for an advance ordown-paymentt when placing the order. Repeated interaction is considered the next most effective method. Relying on the client's business reputation is not *per se* perceived as a major way of avoiding problems. Careful screening of customers, and legal proofs and institutions are cited only by a few firms. Showing flexibility and avoiding misunderstanding also help smoothing things out. Kenyan-African firms cite cash payment and advances as the most effective method of avoiding problems and put less emphasis on repeated interaction, reputation and good relations (Table 52 in Appendix). Non Kenyan-African firms, on the other hand, privilege repeated interaction and attribute more weight to reputation and good relations. Large firms seem to rely more on legal proofs than small firms, but the sample size is too small to be conclusive.

The Use of Legal Institutions

Virtually no firm has ever consulted a lawyer regarding one of their suppliers; none of them has brought a supplier to court. Out of 224 panel firms, four threatened a supplier to go to the police, six consulted a lawyer, and four threatened to go to court (Table 45 in Appendix). Arbitration was used in three cases. In contrast, 38 percent of the case study firms ever consulted a lawyer regarding a client (Table 53 in Appendix). Large firms are much more likely to call upon lawyers than small firms, probably because the size of the transactions would not justify the lawyer's fee. Kenyan-African firms hardly ever use lawyers; nearly half of the non Kenyan-African ones do. Regarding their most recent problem with customers, 6 panel firms threatened to go to the police, 44 consulted with a lawyer, 41 threatened to go to court (Table 49 in Appendix). Arbitration was used 5 times. One third of the case study respondents threatened at least one of their customers with court action; one fifth of them actually went to court. Another fifth used formal arbitration, mostly through a common friend. Several respondents say they have not taken legal action because they perceive the legal system as being both expensive and subject to manipulation -- courts, they say, can be bribed by both sides. They claim that the settlements amount to little more than a rescheduling of payments, which does not compensate them for their trouble. Some add that court rulings are not enforceable against 'judgement-proof' debtors, that is, debtors without any asset that can be seized. Several respondents also expressed anxiety at having their name muddied by the publicity of a contractual dispute and did not want to acquire a reputation for undue toughness. Private resolution of contractual matters is deemed preferable. Only a couple firms involved the police or used harsh language with a client. They were not boisterous about it.

Conclusion

The picture of enterprise credit and contract enforcement that emerges from the our work is a detailed and complex one. It has many facets that we now try to disentangle. We focus on three

categories of enterprise credit: bank credit; loans from friends and finance companies; and trade credit. In all cases we summarize what we have learned regarding enforcement, access, flexibility, and information.

Bank Credit

Of the three categories of lenders listed above, banks are those that most heavily rely on the **legal enforcement** of contracts. Banks take mortgages on real property, debentures on stock and moveable assets, and personal guarantees. Banks deal in checks and bills. Banks sign detailed loan contracts with their customers, and they follow complex administrative procedures for loan approval. These procedures serve a multiple purpose: paperwork is required for the establishment of legal documents; information about the borrower must be compared to the bank's own records; and the borrower's credential with other banks must be verified through bankers' opinion. As a result, **access** to bank credit is typically formal and lengthy. Candidate borrowers who do not possess real assets are at a serious disadvantage. Banks discourage small loans because they cannot cover the administrative cost. When banks have to administer small loan programs, for instance at the request of international donors, they adopt simplified procedures and rely on different enforcement mechanisms.

Bank credit, however, is not as rigid and inaccessible as the above suggests. First of all, banks have developed a contractual way of handling multiple small short-term loans for working capital purposes: the **overdraft facility**. The beauty of the overdraft facility is that, once it has been established, it guarantees immediate access to credit up to the overdraft limit. It is cheaper than a straight loan because interest is charged only on the amount used. Guaranteed access distinguishes it from alternative of sources of short term credit, like loans from friends. Firm can take it into account when planning their liquidities. All or part of an overdraft facility can be kept as a buffer fund. All these reasons explain why overdraft facilities are the most popular form of bank credit among Kenyan firms.

Second, banks occasionally disregard normal procedures when the staff member making the loan decision feels particularly confident about a candidate borrower and the validity of his or her project. As a result, **close friends** of branch managers may receive small loans or overdraft facilities without proper collateral. This form of bank credit remains, on the whole, exceptional. By definition it is restricted to a small group of fortunate people who happen to count a branch manager among their friends or relatives. The bank as a firm must also protect itself against the risk of embezzlement by limiting the size of such loans. But according to a few small firms we spoke to, such loans at a key period of their history -- i.e. when they were trying to start or expand their business, or when they were hit by a severe shock threatening the survival of the firm -- gave them enough breathing space to get over trying times.

Third, banks help many firms get instant access to **very short-term credit**. For instance banks may delay the payment of a check for a couple of days. They allow borrowers to exceeds their credit limit for a while. In some cases, they may credit someone else's account before debiting the firm's account. Such services are extended to established customers who maintain a good business relationship with the bank. Fees, however, are charged: the bank does not do anything for nothing. Going over one's overdraft limit can be costly.

In terms of repayment **flexibility** one must make a sharp distinction between overdraft facilities and straight loans. **Overdrafts** do not have a repayment schedule. As a matter of fact, they can be extended indefinitely. The only problem that may arise is if the facility is not renewed at the end of the year, or if it is not expanded to account for inflation and firm growth. In most cases renewal is granted but some firms have experienced difficulties there. Overdrafts are cancelled when the borrower fails to comply with the terms of the contract. Banks are most concerned about firms using overdraft money to finance equipment purchases or personal loans to firm managers. As we have seen some firms manage to use overdraft money for equipment. One of the respondent was in the process of loosing his overdraft facility for having taken a personal loan from the firm.

Loans have a fixed repayment schedule. Consequently, on paper at least, they are more rigid. Repayment inflexibility serves several useful purposes. It imposes a certain discipline on borrowers by providing incentives for prompt payment. It also serves to reveal information. A borrower who skips an installment signals that he or she is in difficulty. Banks rely of skipped installments as signs of trouble to come and redouble caution with delinquent borrowers. According to one bank manager we spoke to, a major disadvantage of overdraft facilities is precisely that they fail to alert the bank when firms are facing trouble. As a result, banks often respond when it is too late. This manager argued in favor of loans with small but frequent installment, say weekly, to keep the bank better informed of its borrowers' situation.

Although delinquent loan borrowers are the object of increased scrutiny, banks nevertheless make an effort to be reasonably flexible. Bank's flexibility comes from the recognition that too rigid a stance is counterproductive. The bank must be tough enough so that borrowers do not falsely claim that they cannot meet loan installments. To that effect financial penalties are associated with late payment. Any borrower who is faced with such penalties and still claims to be unable to pay, however, most probably cannot pay. Forcing repayment would simply push him into bankruptcy. Given the associated costs and uncertainties, a borrower's bankruptcy is typically not in the bank's interest. Banks have thus devised several ways to be flexible yet firm. First, loans are normally coupled with an overdraft facility, so that if a firm cannot meet a loan payment, it can use the overdraft to cover for it. Even if the borrower's overdraft is already fully utilized, banks typically wait for more than a month before handling the matter to their lawyers. Most borrowers get in touch with their bank right away and explain the situation. If they can convince their bank that the problem is temporary and that money is forthcoming, a rescheduling of the skipped installments is worked out and the borrower put on probation. Otherwise the borrower's file goes to the bank's lawyers with instruction to seek repayment by all legal means. Lawyers first try to collect by writing to the borrower directly. Only if all else fails do they take the matter to court and seek foreclosure. The foreclosure process itself takes another several months during which additional opportunities exist to settle the matter amicably. Throughout the process, banks seek the mix of firmness and flexibility that guarantees the maximum probability of repayment.

Banks get **information** about new borrowers in ways that are not radically different from other sources of credit. Most of the information they obtain comes from the borrowers themselves: investment plans, working capital requirements, balance sheets, etc. That information is scrutinized for internal consistency, and compared to other information the bank has at its disposal. Repeated interaction with the borrower is the next most important source of information for the bank. By

handling the borrower's accounts, the bank knows the borrower's volume of transaction, the rhythm of his or her business, whether the borrower has bounced checks or bills, whether he or she is careless about financial issues, and whether he or she has failed to pay previous loans on time. As a result borrowers are most likely to obtain loans and overdraft facilities from a bank they have been banking with for years. Few even bother to approach another bank. A borrower's reputation within the banking or business community at large appears to play a relatively minor role, although banks occasionally seek each other's opinion on a particular borrower. Large firms, thanks to their visibility, may be the only ones who can shop around among banks for better loan and interest rate conditions. Others are stuck with the bank they are banking with.

Informal Credit and Finance Companies

In Kenya, as far as enterprise finance is concerned, informal credit boils down to loans among friends. The system operates more like a mutual insurance system à la Udry than like a credit market. Loans are disbursed to meet liquidity constraints and other emergencies. **Enforcement** is largely informal and based on repeated interaction between friends and reputation within the business community. Someone who unduly defaults on a personal loan exposes himself or herself to future ostracism. Since the community is also a potent information exchange mechanism, a business person who cuts himself or herself from the community seriously reduces his or her chances of success in business. By refusing to repay a loan when one should not have, one also forfeits the insurance that friends provide. In a few cases, informal loans also partially rely on legal enforcement. Some respondents cited taking post-dated checks; other said they would sue a delinquent debtor. Obviously 'friendship' covers different realities, some of which probably closer to the personalized relationship a moneylender may have with some of his customers.

Access to informal loans is extremely fast -- money can be found, respondents say, within a few days if not hours. Although few respondents reported borrowing from friends, many said they would have no problem doing so. The friendship that serves as major enforcement mechanism has to be built up over time. A business person's ability to withstand shocks and thus prosper is a function of his or her network of friends and relatives. If they are numerous and wealthy, the insurance they provide enables the firm to take risk and prosper. If they are few and poor, the firm is at the mercy of external shocks. In practice, the simple fact that one is better connected and insured may encourage other potential lenders to offer credit and other businesses to rely on the firm for their supplies. Wealth and connections attract wealth and connections, success breeds success. This reality alone largely accounts for the economic prosperity of certain segments of the non Kenyan-African population.

The repayment of informal loans is extremely **flexible.** Repayment can be stretched over many months; debts can be forgiven; and the lenders' willingness to wait always depends on the borrower's predicament. It is because lenders are well informed about the borrower's business that they are flexible. What makes informal lenders better informed is the relationship that ties them with the borrower. Informal lenders do not hesitate to complement that information by making their own visual observations and enquiries of the borrower's business. Maximum flexibility and insurance are achieved when information flows most freely.

Finance companies occupy an intermediate position between friends and banks. Like friends, finance companies can approve and disburse loans faster than banks. But unlike friends they charge interest, and their interest is typically higher than that of banks. Given the choice therefore, most firms prefer to borrow from their bank. Like friends therefore, finance companies operate mostly to deal with unexpected liquidity problems or to finance unanticipated high return operations. They are the modern equivalent of moneylenders.

Trade Credit

The **enforcement mechanisms** that support trade credit contracts combine elements of the other two forms of credit. Repeated interaction is the most basic enforcement mechanism. As a customer repeatedly buys from a single supplier, the supplier learns about the volume and regularity of the customer's business, about his habits, about his ability to dissimulate and behave like a business person. The supplier then may test the customer with small loans or by accepting small payment by check. If the experience is satisfactory, trade credit may eventually be forthcoming. **Trust** is built over time, and it is grounded on an understanding of the customer's preferences, technology, outside opportunities, and honesty. Repeated interaction is a multi-purpose enforcement mechanism. It potentially works across ethnic boundaries and, by itself, does not necessitate any exchange of information with third parties. Because trust is a social capital that takes time to accumulate, however, trust-based enforcement reduces the rapidity with which firms can change suppliers and still get trade credit. Trust-based enforcement thus freezes trade patterns and makes it difficult for firms to switch suppliers if relative prices change. The importance of trust in business is supported by the data: firms typically have a small number of regular suppliers from whom they have been purchasing for many years. Firms without regular suppliers can only be found among those who buy exclusively on a cash basis. Few firms, however, put themselves entirely at the mercy of a single supplier and endeavor to keep several sources of supply open.

Trade credit also relies on **reputation** as an enforcement mechanism. In order to be effective, any reputation mechanism requires the exchange of information within a group. In the absence of legal sanction for bad mouthing someone, opportunistic disinformation can only be minimized within a cohesive enough group. Communities build around a common religious faith and intermarriage are likely candidates to form such cohesive groups. In order for the community to be a source of relevant and useful business information, however, it must count many people in a similar line of business. Community networks thus tend to establish and perpetuate themselves over time. In Kenya, various groups of Kenyan-Asians and other non ethnically African Kenyans have been particularly successful at setting up such networks and are now reaping the benefits from such arrangements. The surveys brought to light the impact that the existence of a reputation mechanism has on business. Firms which are part of a network are more likely to get trade credit and to get it right from the start. They get trade credit from more suppliers, at better terms. This enables them to start and expand their business much faster than firms outside any network. Since members of their network can more easily verify whether or not they are telling the truth about their situation, repayment is more flexible. Because they get more credit and the credit they get is more flexible, firms in community networks survive exogenous shocks more easily and do not have to reduce the size of their business in order to survive. Thanks to all these factors combined, they are more prosperous. This in turn means that they can lend

to each other informally, which also help in case of emergency. Thanks to their reputation mechanism, the community networks are thus able to establish a hold on certain segments of business that is virtually impregnable.

At the opposite end of the spectrum, firms that are not well connected or are caught in a less dense and wealthy network, are also less able to absorb shocks. Shocks hit them more heavily and propagate among other firms in the poorer network. As a result firms find it difficult to remain good paymasters and have a harder time establishing a good reputation. Firms can therefore form **expectations** about other firms' ability to be good paymasters based on the network to which they belong. Anticipation about poor repayment performance leads to little credit, little flexibility, and on aggregate poor repayment performance. Expectations and prejudice are self-fulfilling.

Trade credit also relies on the **legal enforcement** of contracts through courts and arbitrators. Legal enforcement is mostly used by larger firms to deal with large individual transactions; it offers little protection to small lenders. Often the threat of legal proceedings is sufficient to elicit repayment. The usefulness of legal enforcement thus goes well beyond solving a few contractual conflicts. In fact the legal system is most useful when it is **not** used, that is, when the simple threat of court action is sufficient to get a creditor his or her money back.

Trade credit is the major source of **flexibility** for those firms who have access to it. It is also, however, the major source of cash flow shocks: liquidity problems are typically triggered by bad payers. Flexibility in repayment terms therefore operates like a diffusion mechanism. Isolated events somewhere in the economy spread by contagion to upstream firms as they do not get paid, then possibly to other upstream or downstream firms as upstream firms request early payment from their customers and delay payment to their suppliers. Provided that the shock not be too large, it is better absorbed by these firms operating jointly. Contractual flexibility therefore operates like a mutual insurance system between businesses.

Trade credit and the flexibility that it encompasses are based on sophisticated **information collection and exchange**. Business persons visit each others' work place and observe; they weigh each other's honesty and business qualities around a cup of tea; they ask each other for references; call up their friends; listen to gossip at community weddings and funerals; launch enquiries among each others' employees; and generally do anything they have to do, one hopes within the boundaries of gentleman behavior, to lay their hands on the information they need to do business. This is particularly true in trade because access to information is the only thing that really differentiates firm. But it is also critical in manufacturing, particularly when the production technology is easy to master and open to all.

Chapter 8. Effects on Investment and Policy Issues

Section 1. Barriers to Credit and the Effect on Investment

The two RPED surveys provide ample evidence of credit constraints, particularly affecting small and microenterprises. Many firms cannot get bank loans, and some do not even get supplier credit. These barriers to credit have an effect on investment in two ways: **directly** when firms cannot invest in profitable projects; and **indirectly** when they refrain from expanding to avoid running into liquidity problems. Both effects are present in the Kenyan data. One third of the case study firms report that at least once they were unable to incur a lumpy investment they thought profitable because of the lack of funds. Kenyan-African firms are much more likely to be affected by barriers to credit directly: more than 80% of them were at least once unable to purchase equipment or vehicles because of lack of funds. The investment capacity of small and particularly micro firms is more affected by barriers to credit than that of medium and large firms.

The indirect effect of barriers to credit is suggested by the following results. One third of the case study firms was at least once put in difficulty as a result of a liquidity constraint. Manufacturing firms are more vulnerable to liquidity problems, presumably because working capital requirements are more complex in manufacturing than in trading. Kenyan-African businesses are again at a disadvantage as more have been put in a difficult position as a result of limited access to emergency funds. A similar pattern exists across firm sizes, with small firms more likely to face problems, it is not as marked as between ethnic groups. A Probit analysis indicates that ethnicity alone has a significant effect on the occurrence of difficulties as a result of liquidity problems. Firm size and other firm characteristics have no significant independent effect. When asked how they avoid liquidity problems, two third of the case study firms declare limiting the size of the enterprise or cutting down on production, indicating that the firm's ability to cope with liquidity problems determines its capacity and desire to expand. The lack or paucity of risk sharing arrangements thus limits firm expansion and reduces investment.

The link between trade credit, payment delays, and risk sharing is also brought out clearly in the data. It is mainly because Kenyan-African do not get as much access to supplier credit as other firms that they are more vulnerable to cash flow problems. A similar comment applies to firms who do not get access to overdraft facilities. Overcoming barriers to credit is thus a prerequisite for allocative efficiency in investment. It is necessary for Kenyan manufacturing to respond rapidly to structural adjustment and expanded export opportunities.

Section 2. Policy Issues

We argued in Chapter 4 that policies meant to address the inefficiencies generated by barriers to credit fall under two broad categories: those that seek to remove barriers to credit directly; and those that seek to redress some of their consequences. The rationale for the first category of policy action can be understood from Figure 1. If policies can be found that shift the barrier to trade credit T and the barrier to bank credit B to the left, then more firms will be able to invest, firm growth will

be faster, adjustment more rapid, and industrialization accelerated in Kenya. The second category of policy action moves credit to the left in spite of the existence of barriers. It includes directed credit and other efforts to bypass barriers to credit. We first consider ways of shifting credit boundaries through policy action and projects. Through various types of institutional reform and legal improvements, policy can help reduce coordination failure, promote institutional innovation, and put state coercion at the service of private contracts.

Coordination Failure

Perhaps the best example of coordination failure in Kenya is the absence of a credit reference bureau. Information about bad payers is not shared among firms. As a result, firms are less able to identify bad payers from good payers and less inclined to give credit. The absence of an information sharing mechanism makes it particularly difficult for new firms to gain access to credit. Indeed they must establish a credit repayment history with each potential source of credit individually. Established firms also find it difficult to shift their activities to respond to changes in relative prices because, in the absence of information sharing, dealing with new suppliers requires establishing a credit history with them directly.

Subsets of the Kenyan-Asian business community have managed to overcome these limitations by establishing reputation mechanisms among themselves. Information about business behavior and debt repayment is exchanged between businessmen. One should be careful, however, not to assume that all of Kenya's 80,000 strong Asian population shares business information. Reputation remains largely confined within small business communities -- the Patels, the Shahs, the Sikhs, the Ismaelians, to name a few. These communities distrust each other about as much as they distrust non-Asians. There is therefore considerable scope for improving the circulation of information even between Kenyan-Asian businesses.

To our surprise we were unable to uncover reputation mechanisms at work within the Kenyan-African business community, along ethnic lines or otherwise.[29] We may have missed them because in Nairobi the four sectors of economic activity on which RPED focuses its research happen to be dominated by Kenyan-Asians.[30] At any rate, Kenyan-African firms in these four sectors at least are at a clear disadvantage in terms of access to supplier credit because information about their credit repayment history does not currently cross ethnic boundaries. Because good Kenyan-African businesses cannot rapidly and costlessly differentiate themselves from bad ones, they are statistically discriminated against in terms of access to credit. There is a coordination failure in information dissemination.

A private firm, Credit Reference Kenya, is currently attempting to overcome this coordination failure by pooling business credit histories from various sources onto a computer data bank, and making the information available to its customers in convenient form. It is, however, experiencing serious difficulties as firms reluctantly relinquish information that could help their competitors without knowing if they will receive similar information from them. Banks in particular are unwilling to share

[29]African traders' network were indeed clearly apparent during our work in Ghana.

[30]See for instance Macharia (1988).

information about bounced checks and bills of exchange. The same is true for credit card and hire-purchase companies. All have their own credit history information that they will not give away without assurances that others will do the same. Indeed, in a world of imperfect information, credit histories constitute an important asset on which credit suppliers of all kinds base their business. Unless all agree to share information, no one will, at least until the credit reference data bank is large enough that the participation of a single major player would not give a competitive edge to its competitors. There is therefore a role for policy to help coordinate action and favor the establishment of a critical mass of credit information. This can be achieved, for instance, if the efforts of Kenya Industrial Estate to establish a data base on the credit history of its own customers is coordinated with private efforts to establish a credit reference service in Kenya.

Institutional Innovations

Just as one does not expect Kenyan firms to know how to make computer chips simply because they are manufactured elsewhere, one should not assume that institutional innovations introduced elsewhere are instantaneously transferred to Kenya. The establishment of computerized credit reference services are one example of an institutional innovation that is not immediately transferable because of coordination problems. There are many examples of policy interventions in Kenya and elsewhere whose success, hypothetical or real, rests on institutional innovation. We focus on a few.

Developing a computerized credit history for firms that have received credit from Kenya Industrial Estates and other lenders to micro and small enterprises is one of them. Irrespective of whether that information is shared with other lenders, as has been suggested, computerization is an innovation that enables a lender to keep track of thousands of credit histories and therefore to use more effectively the information at its disposal. By enabling small firms to establish a credit repayment history, computerization helps good payers get access to more credit (Tomecko and Aleke-Dondo (1992)).

Group lending is a relatively recent addition to the panoply of credit instruments promoted in Kenya and elsewhere in the Third World. Its success as an effective way of channelling credit to firms who otherwise would not get it relies on the ability of the group to help **enforce** repayment by one of its members. Group lending is thus an contract enforcement innovation. Viewed in this light, group lending is most effective if it generates incentives for group members to put pressure on delinquent members, if group members have some leverage on other members, and if it is not in the interest of the group to defect collectively. From the conversations we had in Kenya with various organizations (banks, NGOs, projects) involved in group lending, it appears that the most successful programs are those that stagger credit to members over time. As a result, those who are becoming eligible for credit have an incentive to put pressure on delinquent members, and the group as a whole finds it difficult to collude to default. The ability of group members to put pressure on others, however, is problematic, especially in groups that were formed exclusively to receive credit. The cost of keeping the group together is high. This is hardly surprising given that, in order to provide incentives for repayment, one has to create antagonistic relations between group members. The disbursement of large amounts of money through group lending therefore requires large investments in group formation and maintenance. For this reason, group lending is costly if attempted on a large

scale. It may not even be possible as many potential recipients of credit refuse to join groups and to get embroiled in other people's affairs and problems.

Credit guarantee is an even more recent institutional innovation in Kenya. The idea is for an outside party (donor, government agency) to partially guarantee a supplier of credit against default. A special fund is created whose purpose is to compensate a supplier of credit who faces default. Such a program has been financed by USAID to incite the Commercial Bank of Kenya to extend credit to special target groups. A similar program has been suggested to protect suppliers of goods who extend credit to their clients. It is too early to judge the success of such attempts, but it depends on whether lenders prefer to collect the insurance premium without spending much effort collecting from their delinquent clients, or to bear the full cost of screening, monitoring, and recovery. If the cost of recovery is higher than the risk borne by the lender, no effort to recover will take place and the guarantee fund will be rapidly depleted. Credit guarantee does nothing to increase debtors' willingness to repay. It only reduces the lender's risk in trying out new borrowers. It constitutes a possible avenue out of statistical discrimination by providing good borrowers an opportunity to prove themselves that is denied when the lender has to assume of the risk.

Hire-purchase can be considered an institutional innovation as well. Hire-purchase is a rapidly growing form of credit in Kenya, especially for vehicles, and to some extent for consumer durables. Hopefully it will expand to include equipment and machinery as well. What is innovative about hire-purchase is that it relies on the collaterizability of moveable assets. Because the lender remains owner of the good until full payment, it can be repossessed from the delinquent debtor without having to resort to court action. A new avenue for credit is created through the establishment of an alternative enforcement procedure.

A similar idea is behind the resuscitation of chattel mortgages by the Kenyan Industrial Estate. The idea behind the chattel mortgage is similar to that behind hire-purchase, namely, to make a piece of movable property directly responsible for servicing a debt. The difference with hire-purchase is that in a chattel mortgage the lender is not the owner of the property. Repossession of a chattel in case of loan delinquency involves simplified procedures that are less costly than for unsecured loans. Chattel mortgages have enabled many micro and small firms to receive credit from KIE using their equipment as collateral (Tomeko and Aleke-Dondo (1992)).

The collateral value of equipment and machinery currently suffers from thin, unorganized markets for used capital. The absence of registration for items other than vehicles also introduces an element of uncertainty in equipment transactions. A dishonest debtor may be tempted to evade his contractual obligations by liquidating his equipment. If buyers cannot easily verify if a piece of property is free of lien, the market for second-hand equipment may suffer. The solution is to set up a registry of industrial machinery and equipment and to develop a market for auctioned equipment. These actions would increase the collateral value of equipment and improve access to credit for small and medium manufacturing firms in Kenya.

State Coercion at the Service of Private Contracts

The key feature that differentiates the state from private agents is its monopoly on the use of public force. The state can help decrease barriers to credit by putting public force at the service of contract enforcement. To do so effectively, public force must be harnessed at reasonable cost to

private agents. Currently the use of courts and tribunals in Kenya is too costly for most commercial contractual disputes. The attractiveness of hire-purchase and chattel mortgage is precisely that they bypass the need for full fledged court proceedings. The usefulness of Kenyan courts could be increased by setting up small claims courts in which lawyers are not admitted. Specialized courts for business disputes could also be envisaged.

The state can also help contract enforcement by assisting informal mechanisms. The sharing of information on credit repayment, for instance, is an essential ingredient of any reputation mechanism. The state can favor the circulation of information by assisting the establishment of private or public credit reference services. The state should encourage collaboration, in whatever form, between private credit reference companies like Credit Reference Kenya, government agencies like KIE, the Kenyan Firm Registration Office, private and public banks, credit card agencies, and hire-purchase companies. By pooling their information together, the coordination failure can be overcome. The official registration of chattel mortgages and hire-purchase contracts on equipment and machinery could be envisaged. This would be far cheaper than registering all equipment and machinery. An auction market for used equipment could be set up through which all repossessed items could be liquidated.

Directed Credit

Although highly desirable, policies directed toward a direct reduction of barriers to credit are unlikely to eliminate them altogether. Directed credit may remain necessary (Cho and Hellman (1993)). The difficulty, however, is that any credit program, directed or not, is bound to run out of funds if sufficient care is not given to contract enforcement issues. Many directed credit programs turn out to operate as welfare transfers: as loans become due, default rates rise, and funds are no longer replenished. As a result, most directed credit programs are short-lived. As welfare transfers they are not effective in reaching the neediest. Because they hesitate to seek loan repayment from their target population, they favor the emergence of dishonesty and cynicism among those who would most benefit from establishing their credit worthiness.

Directed credit must therefore rely on innovative contract enforcement mechanisms, whether group lending, credit guarantee schemes, hire-purchase, computerization of credit histories, and chattel mortgages. The approach currently adopted by the Kenya Industrial Estates, as we understand it, espouses many of these innovations. It should be encouraged and imitated. Credit programs that entertain a naive attitude toward credit repayment should be discouraged. Political interventions to protect delinquent debtors should be avoided.

Conclusion

This report has taken a fresh look at enterprise finance in a representative Sub-Saharan country, Kenya. The picture that emerges is a rich and yet simple one. Variations in enterprise finance are largely dictated by contract enforcement issues. Limited contract enforcement creates barriers to credit and insurance. Barriers to credit and insurance stifle investment and slow economic adjustment to changes in relative prices and export opportunities. Correcting the situation requires that contract enforcement mechanisms be improved.

By looking at enterprise finance from the point of view of firms, several areas of scientific enquiry and policy intervention that are typically ignored have come to the forefront: trade credit, hire-purchase and chattel mortgages, bank overdraft facilities, credit reference and other information sharing mechanisms. We have shown how trade credit flows from large firms to small and medium firms and is irrigated by bank overdrafts. We have demonstrated how important access to instant credit and repayment flexibility are as a source of insurance against liquidity shocks. We have documented the plight of microenterprises who are rationed out even of trade credit and must rely on advances from customers. We have discussed in detail why Kenyan-Asian businesses find it difficult to lend to Kenyan-African businesses and made suggestions to remedy the situation through a better circulation of information on credit repayment history.

The situation of enterprise finance in Kenya, although not satisfactory, is far from desperate. The channels through which funds can be directed to enterprises are diverse. Bank loans and overdrafts to large firms translate into trade credit to small and medium ones. Loans to finance companies go into hire-purchase and instant credit against liquidity shocks. Firms are familiar with other credit instruments, like bills of exchange, but currently shy away from bill discounting given the high interest rates prevalent in the country. Post-dated checks are commonly used and could serve as a basis for a discount curb market should the economy pick up and credit history information circulate more freely. In a way Kenya appears poised for action.

Microenterprises, especially those headed by Kenyan-Africans, constitute an exception to this encouraging picture. Their access to credit is seriously restricted and their growth and ability to survive liquidity shocks impeded. We propose several measures that should over time grant them better access and help some of them emerge as major players in the Kenyan manufacturing sector.

Appendix: The Incidence of Macro Policies on Enterprise Finance

Neither the panel survey nor the case study interviews were specifically geared toward assessing the effect of macro policies on enterprise finance. But macro issues often came up in the conversation with respondents. In this chapter we take advantage of the detailed understanding of the workings of enterprise finance that we have acquired in Kenya to speculate on the reasons that motivated the respondents to comment on macro issues the way they did. These speculations are no more than what their name indicates. They should be taken as such. They are based, however, on comments made by numerous firms having to face Kenyan macro realities everyday. This chapter begins with a brief reminder of recent macro economic events in Kenya. Section 2, 3 and 4 discuss the effect on enterprise finance of the credit squeeze, the recession, and foreign exchange policies respectively.

Section 1. Recent Macro Economic Events

The macro economic situation of Kenya has been discussed in detail elsewhere (e.g., RPED (1993), Aleem et al. (1992), World Bank (1992), Tomecko and Aleke-Dondo (1992)). We limit ourselves here to a very brief summary of recent events and refer the reader to other sources for details. Since 1990 the Kenyan economy is in recession, although it has far from collapsed. The economic downturn is largely the result of reduced flows of foreign funds, both aid and credit. The government deficit as a percentage of GDP has dramatically increased in 1991 and 1992, in spite of sharp reductions in government expenditures on maintenance and services. Government expenditures became difficult to control in the period immediately prior to the general elections held in late 1992 as political parties sought to attract voters. The creation of money to finance the deficit alarmed foreign donors who, in early 1993, insisted that the Kenyan government finds non-inflationary ways of financing the deficit. The Kenyan government reacted by dramatically increasing the interest rate it pays on Treasury Bills. In September 1993, TBills were issued at a nominal interest rate of 70 percent while the inflation rate was estimated to be no more than 30 to 40 percent.

Foreign exchange policies have been erratic over the past few years, no doubt a reflection of the difficulties the country encounters making up for the shortfall of foreign exchange that results from its continuing disagreements with donors. The country has gone through several bouts of liberalization followed shortly afterwards by attempt to reimpose quantitative rationing of foreign exchange. In the course of 1992 private Kenyan firms were allowed to open foreign exchange retention accounts and to exchange foreign currency among themselves. A dual exchange rate rapidly resulted as the Central Bank of Kenya continued to apply the official exchange rate in its transactions with commercial banks. In March 1993, the government decided to 'repossess' all foreign exchange retention accounts. Account holders were compensated at the official exchange rate of 35 KSh/$ at a time when the interbank rate well above that. The effect on imports was devastating as letters of credit could not be honored, etc. Many firms, burned by the experience, decided to stay away from direct imports for a while. Subsequently, foreign exchange was again liberalized, although some degree of Central Bank intervention remains. In late August when we arrived in Kenya commercial banks were buying dollar TCs are 70. But they were giving 64 for cash because that was the rate at

which they had to resell them to the Central Bank. By the time we left in late September, the influx of repatriated money attracted by the high TBill rate was such that the exchange rate on TCs had fallen to 65. To sum it all up in one word, 1993 was a turbulent year for Kenyan businesses.

Section 2. The Effect of the Credit Squeeze

High interest rates on TBills result from the government's effort to finance its deficit through bond creation instead of money. The very purpose of this policy is to redirect domestically available credit toward government. Given that the Kenyan economy is not growing and that foreign donors have not expanded the flow of foreign funds to the country, the government can only increase its share of domestic credit by taking it away from alternative uses, one of which is enterprise finance. A credit squeeze is thus at work in Kenya (Figure 1).

Discussions with respondents suggest various routes through which enterprises are affected.[31] First, anyone with money to spare is tempted to buy TBills. This can be done either directly, or by depositing one's money in finance companies who use it to buy TBills and pay a comparable interest on deposits. The high interest on TBills thus raises the opportunity cost of money for those with sufficient liquidities to make deposits in finance companies. Several respondents, however, expressed reluctance to put their money into TBills because they fear that the government will transform their maturity when repayment comes due. As a result, they argue, the actual return on the investment may be much smaller. This line of argument seemed a perfect illustration of the difficulty for a government to commit not to expropriate ex post those who take advantage of the incentives it offers. The expropriation of foreign retention accounts in March was clearly in everybody's mind. Several respondents also openly doubted that TBills would reduce money creation -- and thus inflation. Some cynically claimed that the government could not resist the temptation to spend the money once it had laid its hands on it and that the immediate effect on inflation would be even larger than in the absence of TBills. Others pointed out that when repayment time comes, the government would likely find an inflation tax convenient. They saw TBills as just of way of postponing the problem of the government deficit into the future, not as a way of solving it. Whatever the reasoning, a 70 percent interest rate sounded extremely suspicious to everyone, but was nevertheless very tempting.

Interest rates charged by banks did not instantaneously adjust to the TBill rate. In September they oscillated around 30 to 35 percent per year. A steady increase in bank interest rates was nevertheless clearly perceptible. Many respondents pointed out that they had become reluctant to use overdraft facilities because of the high interest charges. A few went as far as to terminate their overdraft facility. Interest charged by finance companies was even higher, around 40 percent.

Firms' desire to reduce their use of financial credit in turn affected trade credit. Although we did not ask specific questions about the evolution of trade credit terms over time, most respondents insisted either that trade credit terms had been shortened or that suppliers had started offering large cash discounts. The shortening of credit terms was particularly noticeable for those respondents who

[31]For a theoretial discussion of the relationship between trade credit and monetary circulation, see for instance Ramey (1991).

previously enjoyed very long payment delays -- i.e. from 90 to 180 days. Very few respondents if any said they still enjoyed such long delays. A comparison of the results from the panel survey, conducted in February-March 1993, with those of the case study, conducted in September confirm this evolution: in the panel study, the average repayment term for credit purchases was 58 days; in the case study it was (for manufacturing firms only) 39 days. Several respondents also said that some of their suppliers had started offering cash discounts only recently, and that the cash discounts had become substantial. This assertion, however, is not borne out by the surveys: roughly half of each sample received cash discounts, and the average cash discount turned around 2.6 to 2.8 percent in both cases. One could nevertheless argue that the implicit interest rate has increased since March because the repayment delay is shorter. This result, however, may be an artifact of the data since less emphasis was initially placed on collecting cash discount information during the case study. A few respondents also stated that their supplier had begun charging interest for late payment. Given the extent to which Kenyan firms rely on late payment as a way of gaining access to credit, this is hardly surprising and it is a common bank practice. But that suppliers could resort to it was often talked about as a scandalous contractual innovation.

In a world where trade credit is a major source of credit and insurance for medium size firms, a credit squeeze reduces the access these firms have to credit and insurance. Firms indicate that their primary way of avoiding the risk of liquidity constraints is to reduce their activities. Therefore, as insurance options go down with trade credit, risk averse firms are expected to reduce their activities. Less risk-taking and less investment make the economic contract. That a credit squeeze has an effect on the real side of the economy is hardly a discovery. But the evidence from Kenya points toward transmission mechanisms that involve private deposits, bank overdrafts and trade credit and are different from the ones usually assumed, i.e. though bank loans.

Section 3. The Effect of the Recession

Economic recession means less domestic demand. Since Kenya exports very little of its manufactured products, it also mean less demand for Kenyan manufacturing output. In the panel survey most firms indicated that they set their price as a mark-up over cost. During the case study, however, several respondents indicated that sluggish demand makes it difficult for them to pass on increased interest charges onto customers. With less demand for their products, all firms compete to maintain their sales. Those with easy access to finance do not incur interest charges. They have lower costs and are at an advantage. In order to maintain their sales, others must reduce their profit margins and absorb some of the explicit and implicit interest charges they pay on overdrafts and trade credit. Access to credit and availability of retained earnings therefore dictates which firms suffer most during a recession.

Differences between firms reinforce themselves over time. Because firms with least access to finance must reduce their profit margins, their ability to generate retained earnings is also decreased. Over time they become less and less able to self-finance and self-insure and finally succumb to a liquidity crisis. Recession is thus the time at which shaky firms go bankrupt. Trade credit and informal sources of funds plays a critical role in firms' capacity to survive recessions. The bankruptcy of one of their trade credit customer is also one of the things firms most dread. Several respondents said that

one of the major thing they attempt to deduce from a client's repayment pattern is whether his business is sound or sinking. This is why they do not pay much attention to an occasional delay but get nervous if payment delays occur repeatedly. The information that circulates within the community is largely relative to the state of other people's business. If one firm is perceived in difficulty, trade credit gets withdrawn. The effect on the unfortunate firm of course is predictable: it shrinks or goes out of business. Creditors' expectations are self-fulfilling. This explains why it is so important for a firm manager to know that there are friends she can borrow from whenever her reputation with suppliers is in danger.

Section 4. The Effect of Foreign Exchange Policies and Other Policies

The recent instability of Kenya's foreign exchange policy seems to have induced many firms to shy away from importing directly. The risk of importing has gone up, and many foreign firms still refuse letters of credit on Kenyan banks as a fall-out from the events from last March. During our interviews in September we got the impression that virtually all imports were done by specialized companies, many of which, if respondents are to be believed, are but front-ends for powerful politicians and civil servants. Although one may argue that in a sophisticated economy specialized tasks like importing can be assumed by specialized firms, firms also benefit from direct contact with foreign companies: they can specify their raw material and equipment needs better, they get exposed to new products and ideas, etc. As investors in equipment they may also qualify for supplier credit from foreign suppliers. It is hoped that Kenya will stabilize its foreign exchange policy, thereby encouraging the firms that would gain from importing directly to do so.

The case study and panel samples include maize millers. The maize market in Kenya is subject to government intervention. A government-controlled maize marketing board sells maize to millers at a subsidized price; millers must also sell the flour at a regulated price. At the time of the case study interviews, the ex-depot price charged by the board was inferior to the price at which it purchased from traders and producers. The existence of an inverse margin created a rationing equilibrium in which millers competed in various ways to get subsidized maize: commissions were given under the table commissions to various intermediaries, etc. It is also alleged that unscrupulous individuals purchased maize from the marketing board at the low price only to sell it back to the board at the high price. A change in policy appears to be called for, but the current situation has interesting repercussions on enterprise finance. Millers do not get supplier credit; instead they pay advances to the marketing board. Furthermore, because the price at which they sell the flour to their customers is regulated, they have no incentive to give trade credit. The existence of a rationing equilibrium upstream in a product chain can stop and even reverse the flow of credit from customers to suppliers.

One of the firms interviewed in the case study was a large parastatal whose privatization had been publicly announced. Immediately after the announcement was made, all bank and trade credit was cut off. As a result, this large company with hundreds of workers was reduced to an extremely tight financial situation. The management coped in whatever way it could, arranging direct payment from its customers to its suppliers, and handling a multi-million Shilling operation from petty cash. The exact reason for the banks' and suppliers' reaction is not known to us, and we do not know either

whether the case of this company is unique or not. But this story raises questions about the benefits from privatization in this case.

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Table 1. Deposits in Formal Financial Institutions

	All firms	Micro	Small	Medium	Large
Number of firms (*)	222	53	68	55	46
Percent of firms that hold a bank account	90%	72%	94%	100%	98%
Checking accounts					
Percentage of firms with a checking account	79%	50%	88%	100%	100%
Average number of checking accounts, for those with one	1.31	1.00	1.21	1.27	1.61
For how long checking account held in years	16	14	14	11	18
Savings accounts					
Percent of firms with a savings account	32%	66%	41%	23%	16%
Average number of savings accounts, for those with one	1.32	1.08	1.15	1.92	1.71
For how long savings account held in years	11	10	11	16	6
Foreign exchange accounts					
Percent of firms with foreign exchange certificates	10%	0%	6%	18%	18%
Of those, percent of firms with non honored certificates	39%				
Percent of firms with a foreign exchange retention account	15%	0%	4%	18%	47%
Other financial assets					
Shares in other enterprises	19%	6%	25%	23%	20%
Deposit account in foreign institutions	1%				
Tresury bills	0%				
Bonds	1%				

(*) The exact number of valid observations varies slightly between questions.
Source: RPED Panel Survey

Table 2. Borrowing From Financial Institutions

		Nber firms	Banks	Non-banks	Govt.	Other
All firms		220				
Loans in the last year	Percent firms who received a loan		15%	5%	3%	3%
	Average number of loans		1.09	1.33	1	1
	Average over all firms		0.17	0.07	0.03	0.03
Loans in the last five years	Percent firms who received a loan		28%	9%	3%	2%
	Average number of loans		1.79	2.11	1.67	1
	Average over all firms		0.50	0.18	0.05	0.02
Current balance	Percent firms with balance		22%	7%	1%	2%
	Average balance		13135	3778	2258	1157
	Average over all firms		2926	258	21	26
Micro firms		52				
Loans in the last year	Percent firms who received a loan		2%	0%	4%	
	Average number of loans		1	0	1	
	Average over all firms		0.02	0.00	0.04	
Loans in the last five years	Percent firms who received a loan		8%	0%	4%	
	Average number of loans		1.25	0	2	
	Average over all firms		0.10	0.00	0.08	
Current balance	Percent firms with balance		4%	0%	2%	0%
	Average balance		300	0	17	0
	Average over all firms		12	0	0	0
Small firms		68				
Loans in the last year	Percent firms who received a loan		13%	3%	0%	
	Average number of loans		1	1	0	
	Average over all firms		0.13	0.03	0.00	
Loans in the last five years	Percent firms who received a loan		22%	6%	0%	
	Average number of loans		1.33	1.25	0	
	Average over all firms		0.30	0.07	0.00	
Current balance	Percent firms with balance		18%	4%	0%	1%
	Average balance		779	257	0	3
	Average over all firms		139	11	0	0
Medium firms		55				
Loans in the last year	Percent firms who received a loan		27%	13%	5%	
	Average number of loans		1.07	1.57	1	
	Average over all firms		0.29	0.20	0.05	
Loans in the last five years	Percent firms who received a loan		42%	16%	4%	
	Average number of loans		2.00	2.89	1.50	
	Average over all firms		0.84	0.47	0.05	
Current balance	Percent firms with balance		33%	15%	0%	5%
	Average balance		2437	1071	0	1260
	Average over all firms		797	156	0	69
Large firms		46				
Loans in the last year	Percent firms who received a loan		20%	7%	2%	
	Average number of loans		1.22	1.00	1	
	Average over all firms		0.24	0.07	0.02	
Loans in the last five years	Percent firms who received a loan		43%	13%	4%	
	Average number of loans		2.00	1.50	1.50	
	Average over all firms		0.87	0.20	0.07	
Current balance	Percent firms with balance		37%	9%	2%	2%
	Average balance		34696	10100	4500	2000
	Average over all firms		12822	878	98	43

Source: RPED Panel Survey

Table 3. Characteristics of Formal Finance

	Banks	Non-banks	Govt.	Total
Number of observations (*)	64	21	10	95
Access				
Percent of firms who approached another source of funding	18%	48%	22%	25%
Number of alternative sources of funding approached	2.5	2.7	2.0	2.6
Length of acquaintance in months	147	106	83	131
Loan terms				
Date of application	1988.8	1991.0	1991.6	1989.6
Time for approval in months	3.3	2.6	3.8	3.2
Cash amount	11946	3548	2830	9266
Loan maturity in months	33	19	35	30
Interest rate	18.4%	21.1%	14.5%	18.6%
Collateral				
Percent of loans with collateral	95%	86%	67%	91%
Percent of collateral represented by:				
Land and buildings	78%	37%	50%	67%
Equipment	7%	16%	50%	11%
Other	15%	47%	0%	22%
Average value of collateral	34701	22141	14746	30277
Median value of collateral	7500	3000	1605	
Sanctions for non-payment				
Interest penalties	3%	0%	0%	2%
Interruption of credit	3%	5%	29%	5%
Extension of term	7%	5%	0%	6%
Reduction of interest charge	0%	0%	0%	0%
Debt forgiveness	0%	0%	0%	0%
Legal action	66%	59%	29%	62%
Other	21%	32%	43%	25%

(*) The exact number of valid observations varies slightly between questions.
Source: RPED Panel Survey

Table 4. Access to Formal Loans

Loan application over the last year	All firms	Micro	Small	Medium	Large
Percent of firms which applied for a loan last year	20%	8%	21%	27%	27%
Percent of firms whose application was approved	66%	0%	43%	93%	83%
Reason for not applying last year					
Inadequate collateral	7%	13%	6%	3%	7%
Don't want to incur debt	17%	30%	2%	22%	18%
Process too difficult	8%	15%	8%	5%	4%
Didn't need one	48%	19%	66%	54%	54%
Did not think I would get one	2%	6%	2%	0%	0%
Interest rate too high	5%	2%	9%	8%	0%
Already heavily indebted	5%	4%	4%	5%	7%
Other	7%	11%	4%	3%	11%
Loan application ever					
Percent of firms which have never applied for a lo	56%	83%	62%	33%	31%
Reason for never applying					
Inadequate collateral	14%	23%	8%	13%	0%
Don't want to incur debt	18%	35%	8%	0%	20%
Process too difficult	11%	15%	12%	0%	0%
Didn't need one	45%	15%	62%	75%	60%
Did not think I would get one	5%	8%	4%	0%	0%
Interest rate too high	3%	0%	4%	13%	0%
Already heavily indebted	0%	0%	0%	0%	0%
Other	5%	4%	4%	0%	20%
Lease					
Percent of firms which ever leased equipment	27%	17%	27%	30%	32%

Source: RPED Panel Survey

Table 5. Use of Overdraft Facilities by Firm Size

	All firms	Micro	Small	Medium	Large
Percent of firms with overdraft facilities	62%	13%	57%	91%	89%
Current balance on overdrafts					
Average balance	8303	638	862	1760	19200
Average over all firms	6816	84	494	1600	17113
Percent of firms which have ever received a formal lo	43%	15%	30%	67%	65%
Number of firms	222	53	68	55	46

Source: RPED Panel Survey

Table 6. The Use of Bank Loans and Overdrafts

Loans and overdrafts	
Number of observations (*)	*54*
Percent of firms currently with bank loan	16%
Percent of firms ever with bank loan	49%
Percentage of firms currently with overdraft	58%
Percentage of firms ever with overdraft	70%
Firms with an overdraft	
Number of observations (*)	*37*
Length of relationship with the bank in years	19
Percentage of firms trying only one bank	80%
Time elapsed between application and approval in weeks	20
Interest rate in percent	30%
Percentage of firms citing the following as collateral for the overdraft	
Business land or building	49%
Business equipment	8%
Business stocks	19%
Business contract or major order	3%
Volume of transactions with the bank	5%
Personal land or building	30%
Personal financial assets	8%
Personal guarantee	24%
Third party guarantee	3%
None	3%
Ratio between the value of the collateral and the value of the overdraft	6
Renewal of overdraft	
Percentage of firms that renew their overdraft yearly	100%
Percentage of firms ever experiencing problems renewing overdraft	12%
Percentage of firms that ever tried increasing the size of the overdraft	71%
Percentage of firms ever experiencing problems increasing their overdraft	27%
Percentage of firms using their overdraft for:	
Working capital	85%
Emergency fund	9%
Equipment	6%
Percentage of firms citing the following as advantage or disadvantage of overdraft	
Overdraft cheaper because it only used when needed	34%
Overdraft is more flexible	28%
Overdraft cheaper because it has a lower interest rate	19%
Overdraft is for an indefinite period	3%
Overdraft is multi-purpose	3%
Firm does not qualify for a loan	6%
Loan imposes repayment discipline	3%
Loan cheaper because it has a lower interest rate	3%

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 7. The Use of Credit and Insurance by Firm Type

Bank Overdrafts	All Firms	Manuf.	Trade	Afric.	Non-Afric.	Micro	Small	Medium	Large
% firms currently with overdraft	58%	66%	46%	36%	71%	27%	71%	100%	86%
	57	*35*	*22*	*22*	*35*	*26*	*10*	*10*	*7*
% firms ever with overdraft	70%	74%	65%	46%	88%	39%	92%	100%	100%
	54	*34*	*20*	*22*	*32*	*9*	*12*	*10*	*7*
Average interest rate	30%	30%	32%	23%	32%	29%	30%	29%	34%
	29	*22*	*7*	*4*	*25*	*5*	*7*	*10*	*7*
Trade credit with suppliers									
Average number of suppliers	15	12	20	6	21	10	13	20	32
	56	*34*	*22*	*22*	*34*	*25*	*15*	*10*	*6*
Average number of suppliers giving cre	9	6	14	2	14	8	5	15	12
	56	*33*	*23*	*23*	*33*	*26*	*15*	*10*	*5*
Average proportion of suppliers giving c	60%	56%	65%	39%	73%	52%	58%	81%	57%
	54	*32*	*22*	*21*	*33*	*24*	*15*	*10*	*5*
Proportion of purchases on credit	42%	37%	51%	21%	58%	31%	48%	65%	40%
	56	*33*	*23*	*23*	*33*	*25*	*15*	*10*	*6*
Proportion of purchase on cash	52%	56%	46%	80%	33%	66%	50%	25%	45%
	56	*33*	*23*	*23*	*33*	*25*	*15*	*10*	*6*
Average length of credit term (in days)	34	39	22	13	39	22	32	38	55
	41	*28*	*13*	*9*	*32*	*13*	*13*	*9*	*6*
Trade credit with customers									
% of firms giving credit to customers	68%	77%	55%	44%	85%	54%	64%	90%	100%
	57	*35*	*22*	*23*	*29*	*26*	*14*	*9*	*7*
Proportion of sales on credit	26%	28%	24%	9%	37%	8%	28%	39%	54%
	28	*16*	*12*	*11*	*17*	*11*	*8*	*4*	*5*
Average length of credit term (in days)	47	34	71	117	30	37	78	38	31
	26	*17*	*9*	*5*	*21*	*8*	*7*	*4*	*7*
Business insurance									
% of firms without any insurance	21%	21%	22%	59%	0%	46%	100%	89%	100%
	47	*29*	*18*	*17*	*30*	*22*	*11*	*9*	*5*
Personal loans									
% of firms that give personal loans	43%	39%	48%	48%	39%	52%	27%	50%	25%
	54	*31*	*23*	*23*	*31*	*25*	*15*	*10*	*4*

Source: RPED Case Study

Table 8. Accounts Receivable and Payable All values in '000 Ksh.

	All firms	Micro	Small	Medium	Large
Outstanding credit received from suppliers					
Percentage of firms with a balance	40%	6%	38%	54%	61%
Average positive balance	11102	3	803	2000	32102
Average over all firms	4407	0	308	1077	19574
Outstanding advances given to suppliers					
Percentage of firms with a balance	4%	0%	3%	2%	10%
Average positive balance	7073	0	4	1000	12125
Average over all firms	250	0	0	19	1183
Oustanding credit given to clients					
Percentage of firms with a balance	53%	12%	58%	69%	76%
Average positive balance	6361	4	507	3106	17882
Average over all firms	3397	0	293	2131	13624
Outstanding advances received from clients					
Percentage of firms with a balance	17%	24%	21%	11%	7%
Average positive balance	425	5	31	730	3200
Average over all firms	70	1	7	83	229
Accounts receivable					
Percentage of firms with a balance	54%	11%	58%	69%	80%
Average positive balance	7142	4	516	3088	19398
Average over all firms	3849	0	299	2143	15518
Accounts payable					
Percentage of firms with a balance	49%	27%	56%	53%	60%
Average positive balance	9303	5	457	2199	33756
Average over all firms	4556	1	258	1164	20254

Source: RPED Panel Survey

Table 9. Relationship With Major Suppliers

Number of observations (*)	468
Percent of raw material supplied by major suppliers	63%
Percent of cases in which the major supplier is sole supplier	13%
Type of company	
public enterprise	8%
private domestic	72%
private foreign	15%
other	4%
Frequency of supply	
daily	16%
weekly	33%
fortnightly	27%
monthly	8%
quarterly	2%
half-yearly	3%
yearly	6%
occasionally	4%
Relationship with the major suppliers	
family	1%
friend	10%
business only	88%
other	1%
Length of the commercial relationship in months	104
Percent from the same ethnic group	13%

(*) The exact number of valid observations varies slightly between questior

Source: RPED Panel Survey

Table 10. Form of Payment to Major Suppliers

	Number of observations (*)	Credit	Cash	Advance payment
All firms	524	39%	59%	2%
Micro firms	112	10%	88%	2%
Small firms	159	33%	65%	2%
Medium firms	146	51%	49%	1%
Large firms	116	56%	36%	8%

(*) Combining information about the form of payment to all major suppliers for each firm.
Source: RPED Panel Survey

Table 11. Trade Credit From Suppliers

Credit relationship with suppliers in general	
Number of observations (*)	*56*
Number of regular suppliers	15.3
Number of suppliers ever selling to the respondent on credit in recent past	8.9
Number of suppliers ever selling to the respondent on consignment in recent past	0.5
Number of suppliers ever requesting advance payment from respondent in recent	0
Proportion of suppliers who:	
give credit	60%
ever sell on consignment	3%
ever request advance payment	1%
occasionally receive advance payment	14%
Proportion of purchases:	
on credit	42%
on consignment	2%
on cash	52%
with advance payment	3%
Trade credit	
Number of observations (*)	*43*
Payment terms	
Cash discount in percent	2.8%
Percentage of firms given a specific payment deadline	95%
Payment deadline in days	34
Percentage of firms that ever pay in installments	57%
Percentage of firms that usually pay in installments	0%
Percentage of firms with flexible installments	90%
Reason for buying on credit	
Not enough cash at hand	56%
Cheaper since no cash discount	23%
Convenience and security	9%
To stock slow moving goods	5%
Very small credit only	5%
Buy on consignment	2%

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 12. Characteristics of the Most Recent Purchase All values in '000 KSl

	Credit Purch.	Adv. Payment	Cash Purch.
Number of observations (*)	115	11	184
Value of the purchase	1217	2987	372
Cash price for identical purchase	1004	4504	
Cash discount			
Percent of cases with an explicit cash discount	36%	0%	20%
Average cash discount rate	6.0%		7.3%
Average over all cases	2.2%		1.3%
Duration of credit			
Repayment or delivery term in days	56	28	
Actual time elapsed	52	21	
Payment on order			
Percent of cases with payment on order	6%	45%	
Average payment on order	194	6384	
Average over all cases	12	2902	
Payment on delivery			
Percent of cases with payment on delivery	8%	20%	
Average payment on delivery	134	107	
Average over all cases	11	21	
Payment at the end of the credit period			
Percent of cases with payment at the end of period	96%		
Average payment	1245		
Average over all cases	1191		
Interest charge			
Percent of cases with an explicit interest charge	10%	0%	
Average charge	767		
Average over all cases	73		
Percent who pay or deliver in installments	18%	30%	
Percent who had an outstanding balance when placing the orde	51%		

(*) The exact number of valid observations varies slightly between questions.
Source: RPED Panel Survey

Table 13. Types of Buyers

	(1)	(2)	(3)	% of sales with a written contract
Private end users	54%	75%	71%	40%
Public end users	6%	15%	40%	70%
Private retailers or wholesale	34%	45%	75%	34%
Public retailers or wholesaler	2%	4%	48%	75%
Other	2%	3%	65%	71%
Total	100%			43%
Number of observations	224	224	224	318

(1) Percentage of sales by type of client
(2) Percent of firms selling to various types of clients
(3) Average share of sales going to a certain client type for the firms who sell to that type of clien

Source: RPED Panel Survey

Table 14. Form of Sales to Clients by Firm Size

All firms	Percent of Sales to:	Percent of sales on: Credit	Csgm.	Cash	Adv.P.	Nber. Observ.
Private end users	56%	27%	1%	53%	20%	226
Public end users	9%	55%	0%	34%	11%	38
Private retailers or wholesale	30%	55%	2%	37%	5%	121
Public retailers or wholesaler	2%	67%	0%	33%	0%	9
Other	2%	100%	0%	0%	0%	7
Total		40%	1%	45%	14%	401
Micro firms						
Private end users	82%	3%	0%	68%	29%	59
Public end users	4%	33%	0%	67%	0%	3
Private retailers or wholesale	14%	0%	0%	100%	0%	10
Public retailers or wholesaler	0%	0%	0%	0%	0%	0
Other	0%	0%	0%	0%	0%	0
Total		4%	0%	72%	24%	72
Small firms						
Private end users	59%	25%	0%	50%	25%	72
Public end users	12%	47%	0%	40%	13%	15
Private retailers or wholesale	27%	42%	3%	45%	9%	33
Public retailers or wholesaler	1%	100%	0%	0%	0%	1
Other	1%	0%	0%	0%	0%	1
Total		34%	1%	47%	19%	122
Medium firms						
Private end users	45%	38%	3%	46%	14%	37
Public end users	9%	57%	0%	29%	14%	7
Private retailers or wholesale	38%	65%	3%	32%	0%	31
Public retailers or wholesaler	5%	25%	0%	75%	0%	4
Other	4%	100%	0%	0%	0%	3
Total		51%	2%	39%	7%	82
Large firms						
Private end users	37%	56%	0%	40%	4%	25
Public end users	10%	71%	0%	29%	0%	7
Private retailers or wholesale	44%	67%	3%	23%	7%	30
Public retailers or wholesaler	6%	50%	0%	50%	0%	4
Other	3%	100%	0%	0%	0%	2
Total		63%	1%	31%	4%	68

Source: RPED Panel Survey

Table 15. Trace Credit With Clients

Percentage of firms that give credit to customers	68%
Percentage of sales on credit	26%
Trade credit	
Number of observations (*)	*30*
Length of credit to customers (in days)	47
Type of customers who get credit:	
Wholesaler	31%
Retailer	24%
School, hotel, government institution, and other institutional customers	21%
Manufacturer or contractor	13%
Individual consumer	10%
Reasons for giving credit to customers:	
Customers ask for credit; they cannot pay cash	37%
I use credit to satisfy and retain big customers	27%
Credit is given to neighboring businesses to retain good relationship	3%
Credit is given to businesses held by family members	3%
I must compete with other suppliers who give credit; credit is common practice	20%
Continuity of work and convenience	3%
Credit is only for small amount to complete a sale	13%
Involuntary credit; respondent feels compelled by past practice	10%
No trade credit	
Number of observations (*)	*13*
Reasons for not giving credit to customers:	
Giving credit is costly to recover and the risk of non-payment is high	92%
I cannot afford to give credit	31%
Other	8%

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 16. Characteristics of the Most Recent Credit Sale

	Private user	Public user	Private trader	Public trader	Other	Total
Number of observations (*)	46	17	57	5	5	130
Value of the sale	1564	1663	969	1988	479	1283
Time elapsed in days	42	130	47	30	29	55
Interest charge in percent						
Percent of cases w/ interest	4%	12%	5%	0%	0%	5%
Average interest charge	4%	6%	8%	0%	0%	
Cash discount						
Percent of cases w/ discount	37%					
Average discount	7.1%					
Average over all cases	2.6%					
Percent of sales paid by installm	37%	59%	37%	40%	60%	41%
Payment on order						
Percent of positive cases	20%	6%	4%	0%	0%	9%
Average positive payment	481	1500	200	0	0	
Average over all cases	94	88	7	0	0	48
Payment on delivery						
Percent of positive cases	16%	6%	2%	0%	0%	7%
Average positive payment	1551	0	6	0	0	
Average over all cases	241	0	0	0	0	85
Payment at the end of the credit period						
Percent of positive cases	98%	76%	98%	100%	100%	95%
Average positive payment	1285	808	957	1515	299	
Average over all cases	1257	618	940	1515	299	1007
Relationship with buyer						
Family	2%		9%			6%
Friend	2%		2%			2%
Business only	96%		88%			91%
Other	0%		2%			1%
Percent from the same ethnic gr	16%	8%	20%	0%	0%	16%
Length of relation in months	78	133	141	114	122	116

(*) The exact number of valid observations varies slightly between questions.
Source: RPED Panel Survey

Table 17. Characteristics of the Most Recent Cash Sale

	Private user	Public user	Private trader	Public trader	Total
Number of observations	93	9	31	1	134
Value of the sale	119	51	678	20	243
Percent of sales w/ cash discount	27%	40%	32%	50%	29%
Average cash discount when present	10.7%				

Source: RPED Panel Survey

Table 18. Characteristics of the Most Recent Sale With Advance Payment to Private End-Users

Number of observations	43
Value of the sale	245
Credit period	
Term to repay in days	19
Time elapsed in days	21
Interest charge in percent	
Percent of positive cases	5%
Average positive rate	6.0%
Average over all cases	0.3%
Percent of cases of delivery by installment	7%
Payment on order	
Percent of positive cases	98%
Average positive payment	94
Average over all cases	91
Payment on delivery	
Percent of positive cases	95%
Average positive payment	100
Average over all cases	95
Relationship with client:	
Family	2%
Friend	5%
Business only	93%
Other	0%
Percent from same ethnic group	11%
Length of relation in months	38
Sanctions for non-delivery	
Extension of term	53%
Legal action	25%
Other	26%

Source: RPED Panel Survey

Table 20. Deposits in Informal Financial Institutions

Percent of firms using susu collectors		All firms	0%
Percent of firms making deposits in informal financial institutions		All firms	9%
		Micro firms	21%
		Small firms	9%
		Medium firms	2%
		Large firms	2%
For those making deposits in informal institutions		Number of cases	19
Length of participation in months		Average	54
		Median	*24*
Number of members		Average	44
		Median	*25*
Frequency of contributions per month		Average	4.4
		Median	*1.0*
Amount contributed in '000 KSh.		Average	1.0
		Median	*0.2*
Method of fund allocation	In rotating order		50%
	According to member demand		19%
	Other		31%
Percent of cases in which group operates through the year			100%

Source: RPED Panel Survey

Table 21. Use of Informal Borrowing by Firm Size

	All firms	Micro	Small	Medium	Large
Number of firms (*)	222	53	68	55	46
Access					
Percent who borrowed from informal sources in last 3 years	15%	19%	16%	17%	5%
Percent of firms which applied for informal loan last year	6%				
Percent of borrowers who approached several sources	39%				
Number of other sources of funds approached	2.78				
Reason for borrowing from informal source					
More favorable interest rate	13%	11%	18%	11%	0%
Easier formalities	58%	67%	55%	67%	0%
No collateral required	13%	22%	9%	11%	0%
Flexible payback	3%	0%	9%	0%	0%
Other	13%	0%	9%	11%	100%
Percentage of firms who borrowed from following source in the last 3 years:					
Relatives and friends	12%	17%	13%	11%	5%
Moneylenders	1%	0%	0%	6%	0%
Informal group	0%	0%	0%	0%	0%
Suppliers	0%	2%	0%	0%	0%
Clients	0%	0%	0%	0%	0%
Loans from relatives and friends only:					
Average number of loans for those who borrowed:	8.5	7	3	2	2.5
Percentage of firms with outstanding balance	5%	4%	6%	6%	2%
Current balance:	912	1	1017	183	102
Average balance over all firms:	41	0	61	10	4500

(*) The exact number of valid observations varies slightly between questions.
Source: RPED Panel Survey

Table 22. Characteristics of Loans from Relatives and Friends

Number of cases	26
Length of acquaintance in years	19.9
Loan terms	
Date of last loan received	1991.7
Loan maturity in months	4.1
Average amount of the loan	392
Collateral	
Percent of loans with collateral	4%
Value of collateral	10
Sanction for non-payment	
Extension of term	46%
Debt forgiveness	15%
Legal action	8%
Persistent requests for payment	8%
Other	23%

(*) The exact number of valid observations varies slightly between questions.
Source: RPED Panel Survey

Table 23. Informal Loans Given by the Firm

All firms	Relat.& Friends	Suppl.	Client	Empl.	Other enterp.
Percent of firms giving loans to	3%	1%	2%	43%	2%
Average number of loans given	6	1	267	26	5
Percent of firms w/ outstanding balance	1%	0%	2%	37%	1%
Average positive balance	6	0	47	55	500
Average over all firms	0	0	1	20	3
Micro firms					
Percent of firms giving loans to	4%	0%	2%	17%	4%
Average number of loans given	8	1	10	2	8
Percent of firms w/ outstanding balance	2%	0%	2%	17%	0%
Average positive balance	6	0	10	3	0
Average over all firms	0	0	0	1	0
Small firms					
Percent of firms giving loans to	7%	2%	0%	61%	0%
Average number of loans given	5	1	0	13	0
Percent of firms w/ outstanding balance	2%	0%	0%	42%	0%
Average positive balance	1	0	0	26	0
Average over all firms	0	0	0	11	0
Medium firms					
Percent of firms giving loans to	0%	0%	2%	62%	0%
Average number of loans given	0	0	70	23	0
Percent of firms w/ outstanding balance	0%	0%	2%	54%	0%
Average positive balance	0	0	100	17	0
Average over all firms	0	0	2	9	0
Large firms					
Percent of firms giving loans to	0%	0%	3%	38%	3%
Average number of loans given	0%	0%	0%	0%	0%
Percent of firms w/ outstanding balance	3%	72000%	3%	3000%	75%
Average positive balance	38%	95	33%	211	69
Average over all firms	3%	12	3%	2000	50

Source: RPED Panel Survey

Table 24. Business Insurance

Percentage of firms without any business insurance	21%
Number of observations	*47*
Percentage of insured firms with insurance on:	
Fire on building/stock/equipment	95%
Burglary and riot on stock/equipment	92%
Workers compensation	41%
Shipment/goods in transit	30%
Public liability	16%
Comprehensive coverage	14%
Cash in transit	11%
Broken glass	8%
Contract compliance	5%
Loss of profit as result of external factor	5%
Number of observations	*37*

Source: RPED Case Study Survey

Table 25. Investments in Land, Buildings and Equipment

	Land	Buildings	Equipment
Number of observations	13	17	194
Percentage of firms	6%	8%	91%
Year of the most recent acquisition	1984	1988	1989
Amount of the investment ('000 Ksh.)	1689	8620	4888
Percent of firms who used the following source of funds:			
Retained earnings	46%	53%	69%
Personal savings	8%	12%	11%
Borrowed from friends and relatives	8%	6%	3%
Bank loan	54%	41%	22%
Credit from equipment supplier	0%	0%	4%
Borrowed from moneylender	8%	0%	0%
Other	0%	12%	8%
Percent of value of investment represented by following source:			
Retained earnings	41%	45%	62%
Personal savings	8%	10%	10%
Borrowed from friends and relatives	4%	2%	2%
Bank loan	44%	38%	16%
Credit from equipment supplier	0%	0%	4%
Borrowed from moneylender	4%	0%	0%
Other	0%	6%	7%

Source: RPED Panel Survey

Table 26. Sources of Funds for Equipment Purchases by Firm Size

	Micro	Small	Medium	Large
Retained earnings	53%	64%	63%	64%
Personal savings	28%	12%	0%	0%
Borrowed from friends and relatives	0%	3%	2%	0%
Bank loan	1%	14%	25%	23%
Credit from equipment supplier	12%	2%	2%	2%
Borrowed from moneylender	0%	0%	0%	0%
Other	6%	4%	8%	10%
Number of observations	38	63	51	42

Source: RPED Panel Survey

Table 27. Investment and Access to Credit	
Percentage of firms incurring any form of lumpy expenditure/investment	81%
Percentage of firms investing since inception of business	78%
Type of investment	
Production equipment	61%
Vehicle	25%
Other	14%
Time elapsed between lumpy purchases in months	40
Year of the latest investment	1989
Access to funds	
Could the firm find the money?	
Certainly	57%
Probably	9%
Maybe	20%
No	15%
Percentage of firms that ever needed/wanted to borrow	83%
Of these, percentage of firms that were always able to borrow when needed:	58%
Percentage of firms that were ever unable to buy	37%
Percentage of firms that know who to approach to secure the funds	78%
Length of expected delay between application and disbursement (in days)	127
Strategies for financing lumpy investments:	
Use own funds/retained earnings/personal savings	64%
Ask for loan/extension of overdraft from a bank or financial institution	40%
Use existing overdraft	7%
Arrange hire-purchase	36%
Get credit from supplier of vehicle or equipment	7%
Could rent equipment instead of buying	2%
Get a loan from parent company	4%
Ask loan from a friend or relative	7%
Use advances from customers	4%
Most likely sources of funds:	
Use the firm's retained earnings or buffer fund	54%
Use other personal savings or borrow from the management	22%
Use the proceeds of sale of old equipment to finance part of cost of new one	4%
Get a new loan from the bank the firm is currently banking with	30%
Use existing bank overdraft	13%
Extend the existing bank overdraft	7%
Get a loan or overdraft from a bank the firm has never dealt with	2%
Get a loan from a financial institution	15%
Get a loan from a government project	9%
Get a loan from a moneylender	2%
Use hire-purchase from finance company, supplier, or individual	35%
Use supplier credit from the seller of equipment	7%
Get a personal loan from a friend or relative	13%
Get a loan from a parent company	4%
Use advances from firm's customers	4%
Delay payment to creditors	2%
Number of observations (*)	*46*

(*) The exact number of valid answers varies slightly from one question to another.

Source: RPED Case Study Survey

Table 28. Access to Credit for Investment by Firm Size

	All Firms	Manuf.	Trade	Afric.	Non-Afric.	Micro	Small	Medium	Large
% of firms who ever wanted/need to bo	83%	90%	67%	86%	82%	83%	60%	100%	100%
	42	*30*	*12*	*14*	*28*	*18*	*10*	*8*	*6*
% of firms that were always able to borr	58%	57%	63%	17%	79%	40%	57%	88%	67%
	36	*28*	*8*	*12*	*24*	*15*	*7*	*8*	*6*
% of firms that ever were unable to inve	37%	41%	22%	82%	19%	67%	40%	0%	29%
	38	*29*	*9*	*11*	*27*	*12*	*10*	*9*	*7*
Possible sources of funds cited by firms									
Average number of sources cited	2.2	2.2	2.2	1.8	2.5	2.2	2.3	2.4	1.9
Personal savings	80%	74%	100%	88%	77%	105%	70%	70%	43%
Banks and financial institutions	78%	88%	42%	31%	100%	53%	100%	80%	114%
Hire-purchase	41%	38%	50%	25%	50%	32%	40%	70%	14%
Personal loan	17%	15%	25%	19%	17%	26%	0%	20%	14%
Other	7%	9%	0%	19%	0%	5%	20%	0%	0%
Number of observations	*46*	*34*	*12*	*16*	*30*	*19*	*10*	*10*	*7*

Source: RPED Case Study

Table 29. Liquidity Constraints and Credit

How often does the respondent face liquidity constraints?	
Frequently	33%
Occasionally	22%
Rarely	30%
Never	15%
Frequency (time interval between two occurences in months)	6
Access to funds	
Number of observations (*)	56
Could the respondent find the money?	
Certainly	71%
Probably	14%
Maybe	9%
No	5%
Percentage of firms that ever needed to borrow:	69%
Of these, percentage of firms always able to borrow	68%
Percentage of firms that already know what source of funds to approach	94%
Percentage of firms that ever were in a difficult position	30%
Strategies to deal with liquidity crises:	
I draw upon my buffer fund/personal savings	27%
I delay payment to suppliers	45%
I delay payment to my workers	5%
I ask my customers to pay early/quickly	14%
I request my clients to pay my suppliers directly	2%
I request bank to temporarily extend my overdraft or go over my overdraft limit	25%
I request a new loan or overdraft from a bank or financial institution	9%
I ask my bank to hold onto my check/delay payment of lc for a few days	5%
I delay payment to the bank	2%
I borrow from friends or relatives or husband on a short term basis	30%
I borrow from a parent company	4%
I join hands with other producers to fulfill big orders	2%
I reduce my margin to sell more/faster	14%
I stop new purchases	11%
I reduce production/cut the number of shifts	2%
I stop/delay production/delivery until I get money from sales	2%
I buy from my suppliers on credit	2%
I request more advances from my customers	2%
Most like source of funds:	
Use the firm's retained earnings or buffer fund	16%
Use other personal savings or borrow from the management	21%
Delay payment to creditors	48%
Request early payment from customers	14%
Use existing overdraft	23%
Extend the existing bank overdraft	27%
Get a new overdraft from the bank the firms is currently banking with	2%
Get a new loan from the bank the firm is currently banking with	7%
Get a personal loan from a friend or relative	39%
Get a loan from a parent company	5%
Join hands with other producers	2%
Use supplier credit	5%
Use advances from firm's customers	4%
Use the proceeds from faster sales	11%
No other source of fund than waiting for customer	2%

(*) The exact number of valid answers varies slightly from one question to another.

Source: RPED Case Study Survey

Table 30. Strategies to Prevent Liquidity Crises

Strategies to avoid liquidity problems or minimize their effect:	
I anticipate and overlook my liquidities carefully	31%
I limit the size of the enterprise/number of workers/size of shipments	35%
I delay/cut down production or purchases/reduce inventories	31%
I sell cash only	18%
I ask advances/early payment/deposit from customers	18%
I reduce credit terms to my customers	4%
I deal only with reliable customers	2%
I try to keep customers satisfied so that I get paid quickly	2%
I keep a buffer fund/easy access to credit/unused overdraft	15%
I have other sources of income	2%
I have a bills of exchange discounting agreement with the bank	2%
I maintain excellent relations with the bank	2%
I make sure that my stock move quickly and that money does not sleep	11%
I market my goods vigorously when I need money	4%
I maintain a stock of finished products/items for sale	7%
I limit the size of my purchases to the available supplier credit	5%
I buy exclusively on cash so as not to incur debt	2%
Buffer fund	
Percentage of firms keeping some form of buffer fund	67%
Buffer fund as proportion of monthly liabilities	60%
Form in which the buffer fund is held:	
Underdrawn bank overdraft	29%
Cash holding of the firm	34%
Personal savings of the owner	11%
Income from other sources	9%
Separate business or savings account	14%
Invisible fund	3%
Number of observations	35
How was the size of the buffer fund decided	
My buffer fund depends on my stock/funds needs and the cost of money	33%
My buffer fund depends on production costs and exposure to risks	4%
I learned from experience	4%
My buffer fund is limited by my ability to put money aside	19%
I have plenty of personal savings and my buffer fund is more than enough	11%
My buffer fund is used for/income from other businesses and varies over time	11%
My buffer fund is used for many purposes, not just production	7%
My buffer fund protects myself against non-renewal of the bank overdraft	4%
Number of observations	27

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 31. Cash-Flow Management by Firm Type

How often liquidity problems occur	All Firms	Manuf.	Trade	Afric.	Non-Afric.	Micro	Small	Medium	Large
Frequently	0.33	39%	24%	48%	24%	42%	7%	30%	50%
Occasionally	0.22	24%	19%	19%	24%	21%	7%	0%	33%
Rarely	0.3	24%	38%	24%	33%	33%	36%	40%	0%
Never	0.15	12%	19%	10%	18%	4%	29%	30%	17%
	54	*33*	*21*	*21*	*33*	*24*	*14*	*10*	*6*
Access to credit									
% of firms that ever needed to borrow	0.69	74%	62%	81%	62%	77%	54%	67%	71%
	55	*34*	*21*	*21*	*34*	*26*	*13*	*9*	*7*
% of firms that were always able to borr	0.68	64%	77%	41%	91%	55%	86%	83%	80%
	38	*25*	*13*	*17*	*21*	*20*	*7*	*6*	*5*
% of firms that were ever in a difficult p	0.3	41%	14%	44%	23%	41%	14%	30%	29%
	53	*32*	*21*	*18*	*35*	*22*	*14*	*10*	*7*
Possible sources of funds cited by firms									
Personal savings	30%	29%	33%	62%	23%	46%	38%	30%	14%
Banks and financial institutions	59%	69%	43%	33%	71%	35%	77%	80%	86%
Personal loan	46%	43%	52%	48%	46%	54%	38%	40%	43%
Delay payment/speed up recovery	63%	66%	57%	33%	80%	42%	54%	100%	100%
Sell faster, etc	21%	14%	33%	29%	17%	27%	23%	20%	0%
	56	*35*	*21*	*21*	*35*	*26*	*13*	*10*	*7*
Strategies to avoid or minimize liquidity problems:									
Overlook liquidities carefully	31%	29%	33%	14%	41%	21%	36%	50%	29%
Limit production and purchases	65%	62%	71%	76%	59%	71%	71%	30%	86%
Limit credit to clients/insist on advances	45%	53%	33%	62%	35%	42%	50%	40%	57%
Use a buffer fund or open access to cre	18%	24%	10%	19%	18%	17%	21%	10%	29%
Reduce margin	22%	21%	24%	33%	15%	38%	0%	30%	0%
Other	7%	3%	14%	10%	6%	17%	0%	0%	0%
	55	*34*	*21*	*21*	*34*	*24*	*14*	*10*	*7*
Buffer fund									
% firms with a buffer fund	67%	63%	73%	62%	70%	68%	64%	67%	67%
	54	*32*	*22*	*21*	*33*	*25*	*14*	*9*	*6*
Buffer fund as proportion of liabilities	60%	76%	33%	61%	58%	65%	81%	60%	55%
	18	*11*	*7*	*4*	*14*	*7*	*4*	*4*	*3*

Source: RPED Case Study

Table 32. Socialization With Potential Sources of Credit by Firm Type

With banks	All Firms	Manuf.	Trade	Afric.	Non-Afric.	Micro	Small	Medium	Large
Parties do not know each other	45%	33%	63%	67%	36%	60%	46%	44%	14%
Business acquaintances	30%	44%	11%	7%	42%	24%	15%	44%	57%
Business lunches	9%	7%	11%	13%	7%	11%	23%	0%	0%
Meet in the community	15%	15%	15%	13%	16%	6%	15%	11%	29%
	46	*27*	*19*	*15*	*31*	*17*	*13*	*9*	*7*
With informal sources of credit									
Business acquaintances	14%	16%	10%	33%	5%	29%	0%	0%	0%
Same community	11%	11%	10%	0%	15%	0%	40%	17%	0%
Friends	38%	42%	30%	33%	40%	29%	60%	50%	25%
Relatives	21%	11%	40%	11%	15%	43%	0%	0%	0%
Parent company	17%	21%	10%	22%	25%	0%	0%	33%	75%
	29	*19*	*10*	*9*	*20*	*14*	*5*	*6*	*4*
With suppliers									
Parties do not know each other	32%	39%	23%	62%	13%	38%	29%	10%	60%
Business acquaintances	30%	39%	18%	19%	38%	21%	36%	40%	40%
Business lunches	8%	7%	9%	9%	6%	8%	7%	10%	0%
Same community	23%	13%	36%	0%	38%	25%	14%	40%	0%
Previously acquainted	7%	3%	14%	9%	6%	8%	14%	0%	0%
	53	*31*	*22*	*21*	*32*	*24*	*14*	*10*	*5*
Frequency of meetings with suppliers									
Frequently	7%	4%	13%	0%	10%	6%	9%	10%	0%
Occasionally	43%	35%	56%	27%	48%	53%	36%	40%	25%
Rarely	19%	19%	19%	9%	23%	12%	27%	30%	0%
Never	31%	42%	13%	64%	19%	29%	27%	20%	75%
	42	*26*	*16*	*11*	*31*	*17*	*11*	*10*	*4*
Percentage of firms for which the supplier knows:									
Business location	93%	96%	88%	89%	94%	87%	92%	100%	100%
Residence	46%	52%	38%	25%	52%	39%	27%	67%	75%
Profit or turnover	22%	24%	19%	13%	24%	31%	0%	22%	50%
Number of employees	34%	41%	25%	25%	37%	31%	25%	33%	75%
Other suppliers	50%	63%	33%	29%	56%	46%	20%	75%	100%
Major events	59%	55%	64%	33%	64%	55%	50%	67%	75%
Percentage of firms who know the suppliers':									
Business location	90%	87%	94%	75%	94%	100%	83%	89%	75%
Residence	38%	38%	38%	25%	41%	43%	27%	44%	33%
Profit or turnover	22%	25%	19%	0%	29%	23%	18%	22%	33%
Number of employees	33%	40%	25%	38%	32%	39%	27%	33%	33%
Major events	44%	50%	38%	13%	54%	39%	27%	67%	33%

Source: RPED Case Study

Table 33. The Establishment of a Trade Credit Relationship With a Supplier

How was trade credit from your suppliers initiated	
First bought cash for a while	38%
Used mutual contacts to establish trust/ was recommended	13%
Knew supplier before as employee/partner of another firm	25%
Salesmen/supplier offered credit right from the start	8%
Firm is (part of) a well known business with a good reputation	10%
Supplier is a subsidiary	3%
Practice continued from previous owner	5%
Number of observations	*40*
How is reputation established:	
I establish my reputation by being a good paymaster	76%
Not only do I have to be a good paymaster, I must explain my problems	6%
I establish my reputation by never letting one of my checks bounce	2%
It is not a matter of reputation; to sell suppliers have to give me credit	2%
Since I do not get any credit from suppliers, reputation is not an issue	14%
Number of observations	*50*
Percent of respondents whose suppliers share information of repayment record	46%

Source: RPED Case Study Survey

Table 34. The Establishment of a Trade Credit Relationship With a Client

Number of observations (*)	*45*
How does respondent assess the creditworthyness of customer	
A creditworthy debtor is one whith whom I have had a long successful relation	60%
A creditworthy debtor is one who has a good reputation with others	26%
A creditworthy debtor is someone I know (friend, business acquaintance)	11%
A creditworthy debtor is one who satisfies my formal requirements	2%
Strategies to collect information about a potential debtor	
I test the debtor by giving small loans first	33%
I assess the debtor on the basis of past cash transactions	22%
I ask around about the potential debtor from other suppliers and customers	33%
I ask the debtor to provide references, preferably among people I know	27%
I ask information from the debtor's bank	20%
I visit the potential debtor and observe his business or place of work	31%
I carefully interview or screen the customer, ask him or her to fill a form	13%
I believe that large firms/institutions/wealthy consumers are better paymasters	9%
I use my knowledge of the debtor's business and consumption pattern	7%
I knew the potential debtor before (friend, family, business acquaintance)	27%
I take the chance	9%
Strategies to verify information about a potential debtor	
I make my own observations	28%
I rely on my ability to judge someone from his/her expression/behavior/attitude	8%
The information must cross-checked	28%
The source of information must be someone I know or from my community	23%
The source of information must be credible/is an institution	15%
I cannot/do not cross-check the information given	25%
The debtor is a family member/friend/churchmate	8%
Guarantees	
Number of cases	5
Ask for advance	80%
Ask for guarantor	40%
Ask for post-datad check or bill of exchange	40%
Retain ID card	20%
Can legally repossess	20%

(*) The exact number of valid answers varies slightly from one question to another.

Source: RPED Case Study Survey

Table 35. The Establishment of Trade Credit Relationships by Firm Type

With suppliers	All Firms	Manuf.	Trade	Afric.	Non-Afric.	Micro	Small	Medium	Large
How trade credit was initiated									
Bought cash for a while	38%	46%	25%	78%	26%	43%	50%	25%	17%
Used mutual contacts	15%	4%	31%	0%	19%	14%	17%	26%	0%
Knew supplier before	25%	25%	25%	11%	29%	36%	8%	25%	33%
Credit offered from the start	23%	25%	19%	11%	26%	8%	25%	25%	50%
	40	*24*	*16*	*9*	*31*	*14*	*12*	*8*	*13*
With customers									
Strategies to collect information from potential trade debtor									
Repeated interaction	56%	59%	50%	33%	67%	40%	44%	67%	100%
Ask around	80%	93%	56%	33%	103%	45%	78%	78%	186%
Visit and interview	73%	72%	75%	100%	53%	75%	78%	56%	86%
Previous acquaintance	13%	10%	19%	20%	10%	25%	0%	11%	0%
Take the chance	9%	10%	6%	7%	10%	5%	11%	22%	0%
	45	*29*	*16*	*15*	*30*	*20*	*9*	*9*	*7*

Source: RPED Case Study

Table 36. Repayment Problems With Banks

Percentage of firms ever having problems repaying banks	59%
Days firm can delay payment of bank loan installment without incurring sanction	34
Outcome if delay repayment to bank:	
Bank charges penalties	53%
Legal action/lawyer's letter	27%
Harassment, send reminder, send statement	13%
It hurts my reputation with the bank	7%
Percentage of firms where bank's action depends on their situation	64%
Number of observations (*)	*15*

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 37. Repayment Problems With Informal Lenders

Percentage of firms ever having problems repaying informal lenders	69%
Days firm can delay payment of loan installment to a friend without incurring sanction	278
Outcome if delay repayment to an informal lender:	
No sanction/debt forgiveness	70%
Harassment, send reminder, send statement	10%
Bad mouthing	10%
Warning for first time that if respondent reiterates, creditor will reduce credit	10%
Percentage of firms where other lender's action depends on their situation	100%
How does the other lender know the respondent's difficulty is genuine	
Lenders visit my business and observe	63%
Lender is a parent company	25%
Lenders do not or cannot verify what I tell them, but they trust me	13%
Number of observations (*)	*11*

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 38. Repayment Problems With Personal Loans to Friends

Length of credit to friends (in days)	27
Percentage of firms having problems collecting debts from friends	46%
Allowed delay (in days)	283
Outcome if friend delays repayment:	
No sanction/debt forgiveness	50%
Work out payment in installments	10%
Harassment, send reminder, seek intermediation	30%
Legal action/lawyer's letter	10%
Rely on post-dated check	10%
Number of observations (*)	10

(*) The exact number of valid answers varies slightly from one question to another.

Source: RPED Case Study Survey

Table 39. Guarantees and Sanctions in Credit Purchases from Suppliers

Guarantee:	**% Cases**
none	76%
physical collateral	3%
third party guarantor	3%
postdated check	2%
signed invoice	4%
other	14%
Number of observations	111
Sanction for non-payment:	
interest penalties	6%
interruption of credit	16%
interruption of deliveries	17%
extension of term	12%
reduction of interest charges	2%
legal action	34%
other	14%
Number of observations	113

Source: RPED Panel Survey

Table 40. Repayment Problems With Trade Credit From Suppliers	
Number of observations	*39*
Percentage of firms ever having problems repaying suppliers	90%
Days firm can delay payment of supplier beyond due date without incurring sanction	33
Frequency (number of times within a year that delay can happen)	3
Negotiation of payment delay	
I alone decide when and how much to pay according to my needs/resources	18%
I alone decide to delay payment if I need to and wait for the supplier to complain	10%
Before delaying we discuss our mutual needs and decide accordingly	33%
When I need to delay payment I inform the supplier and explain my problems	26%
The creditor indicates the minimum amount to be paid at any given time	3%
I have to ask the supplier to ask his bank to delay collecting payment of bills	3%
I cannot/do not want to delay since I have given a post-dated check	5%
I cannot delay at all	3%
If delay requested, how does creditor establish true need?	
Suppliers do not or cannot verify what I tell them, but they trust me	78%
Suppliers understand late payment when business trend is slow	11%
I must convince the supplier by showing evidence or commitment	8%
Supplier is my subsidiary	3%
Outcome if delay repayment to supplier beyond an excusable delay:	
No more credit	23%
Warning for first time that if respondent reiterates, creditor will reduce credit	14%
Reduced credit/lower priority for deliveries	3%
No more deliveries/supply	17%
It hurts my reputation with that supplier	9%
Creditor charges penalties	11%
Harassment, send reminder, send statement	6%
Legal action/lawyer's letter	6%
No sanction/debt forgiveness	9%
Creditor either reduces the price or takes the goods back	3%
Percentage of firms where supplier's action depends on their situation	92%
How does the supplier know the respondent's difficulty is genuine	
Suppliers do not or cannot verify what I tell them, but they trust me	46%
Suppliers know general business conditions and how they affect my business	15%
Suppliers visit my business and observe or verify my story at the source	18%
Suppliers exchange information with other businesses or in community	12%
I must convince the supplier by showing evidence	9%

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 41. Repayment Problems With Trade Credit To Customers

Number of observations (*)	*37*
Percentage of firms having problems collecting debt from customers:	95%
Allowed delay (in days)	110
Outcome if customer delays repayment:	
No more deliveries/supply	24%
No more credit	21%
Warning for first time that if reiterate will cut or reduce credit	6%
Harassment, send reminder, send statement	64%
Legal action/lawyer's letter	21%
Repossess the good	3%
Rely on post-dated check	3%
No sanction/debt forgiveness	12%
Percent of respondents whose action depends on customer's predicament	89%
How does the respondent knows the customer's difficulty is genuine	
I cannot tell	29%
I rely on my knowledge of business conditions	3%
I judge someone on basis of behavior and past experience	26%
I visit their business and observe	19%
I observe the client's consumption pattern or ask for evidence	10%
I ask around/am informed by others	39%
The debtor is a neighboring business or family member	10%

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 42. Guarantees and Sanctions in Credit Sales to Clients

Guarantees:	Private user	Public user	Private trader	Public trader	Other	Total
None	61%	69%	86%	75%	60%	74%
Physical collateral	4%	13%	3%	0%	0%	5%
Third party guarantor	7%	0%	0%	0%	0%	2%
Witness	0%	0%	0%	0%	0%	0%
Postdated check	0%	0%	0%	0%	0%	0%
Signed invoices	20%	13%	3%	0%	40%	12%
Group guarantee	0%	0%	0%	25%	0%	1%
Other	9%	6%	7%	0%	0%	7%
Number of observations	46	16	59	4	5	130
Sanctions:						
Interest penalties	0%	0%	2%	0%	0%	1%
Interruption of credit	13%	12%	11%	13%	20%	12%
Interruption of deliveries	11%	6%	5%	0%	0%	6%
Extension of term	9%	0%	11%	13%	0%	9%
Reduction of interest charges	0%	6%	0%	0%	0%	1%
Legal action	55%	53%	59%	75%	60%	58%
Collection agent	0%	0%	2%	0%	0%	1%
Debt forgiveness	4%	0%	2%	0%	0%	2%
Other	9%	24%	10%	0%	20%	11%
Number of observations	47	17	63	8	5	140

Source: RPED Panel Survey

Table 43. Contractual Problems by Firm Type

With suppliers	All Firms	Manuf.	Trade	Afric.	Non-Afric.	Micro	Small	Medium	Large
Negotiation of payment delay with supplier									
I decide how much to pay	18%	21%	13%	22%	16%	14%	27%	20%	0%
I wait for supplier to complain	10%	8%	13%	11%	10%	7%	9%	20%	0%
We discuss	32%	33%	31%	33%	32%	29%	18%	40%	60%
I explain my problems	25%	21%	31%	11%	29%	21%	27%	20%	40%
It is difficult to delay	12%	16%	6%	22%	9%	21%	18%	0%	0%
	39	*24*	*15*	*9*	*31*	*14*	*11*	*10*	*5*
Delivery and quality problems									
% of firms placing orders	72%	61%	87%	50%	88%	60%	79%	90%	80%
	54	*31*	*23*	*22*	*32*	*25*	*14*	*10*	*5*
% of firms ever facing non-delivery	52%	42%	65%	24%	69%	50%	58%	50%	50%
	46	*26*	*20*	*17*	*29*	*20*	*12*	*10*	*4*
% of firms ever facing late delivery	68%	58%	80%	47%	79%	57%	85%	67%	67%
	46	*26*	*20*	*17*	*29*	*21*	*13*	*9*	*3*
% of firms ever facing deficient quality	82%	80%	86%	84%	81%	74%	92%	100%	60%
	51	*30*	*21*	*19*	*32*	*23*	*13*	*10*	*5*
% of firms solving problem satisfactorily	72%	64%	83%	63%	78%	50%	100%	70%	100%
	43	*25*	*18*	*16*	*27*	*18*	*12*	*10*	*3*
With clients									
% of firms ever facing non-payment	60%	66%	52%	40%	73%	46%	54%	80%	100%
	50	*29*	*21*	*20*	*30*	*22*	*13*	*10*	*5*
% of firms ever facing late payment	81%	94%	62%	70%	88%	70%	86%	90%	100%
	53	*32*	*21*	*20*	*33*	*23*	*14*	*10*	*6*
% of firms solving problem satisfactorily	70%	70%	69%	67%	71%	72%	64%	78%	60%
	43	*27*	*16*	*15*	*28*	*18*	*11*	*9*	*5*
% firms ever consulting lawyer for a clie	34%	38%	27%	14%	46%	13%	33%	50%	86%
	56	*34*	*22*	*21*	*35*	*24*	*15*	*10*	*7*

Source: RPED Case Study

Table 44. Late Delivery and Deficient Quality by Firm Size

	All firms	Micro	Small	Medium	Large
Late delivery					
Percent of firms with late delivery last year	39%	10%	38%	45%	62%
Average number of late delivery per year	18.4	3.2	22	9.4	15.5
Median number of late delivery per year	5	3	5	6	5
Deficient quality					
Percent of firms with deficient quality last year	42%	31%	37%	53%	47%
Average number of deficient quality per year	9.7	2.5	18.9	5.2	5.6
Median number of deficient quality per year	3	2	4	4	3

Source: RPED Panel Survey

Table 45. Characteristics of Late Deliveries and Deficient Quality

Number of observations			118
Most recent case			
Late delivery			43%
Deficient quality			57%
Cause for the late delivery or deficient quality			
Manufacturing defect			42%
Supplier had no materials			11%
Problems with transport			4%
Problem with customs, import license or foreign exchange			11%
Other or unknown cause			31%
Action by the respondent			
Waited of did nothing			28%
Bargained with the supplier, returned or exchanged the good			41%
Threatened to go to the police			1%
Changed supplier			9%
Other			22%
Supplier type			
Individual			15%
Firm			71%
Government or public agency			7%
Foreign firm			5%
Other			2%
Relationship with the supplier			
Percent of cases in which was first transaction with supplier			6%
Length of acquaintance in years			9.93
Percent of cases in which supplier was relative			0%
Bargaining, arbitration and legal institutions			
Percent of cases in which direct bargaining was used			65%
Percent of cases in which arbitration was used			2%
Arbiter (4 cases only)	Public official	2	
	Business association	2	
Percent of cases in which threatened to go to police			3%
Percent of cases in which lawyer was hired			5%
Percent of cases in which went or threatened to go to court			3%
Outcome			
Percent of cases in which the dispute was settled			67%
Percent of cases in which satisfied with outcome			86%
Percent of cases in which still doing business with the supplier			87%

Source: RPED Panel Survey

Table 46. Delivery Problems with Suppliers

	Non-delivery	Late delivery	Deficient quality
Percentage of firms ever facing a problem	52%	67%	82%
Average number of problem per month	7.1	3.8	1.6
Median number of problem per month	0.2	0.3	0.2
Last case			
Time elapsed since last case (in months)	6.7	4.1	n.a.
Length of the delay (in days)	n.a.	20	n.a.
Percentage of cases involving imports	8%	7%	2%
Percentage of cases involving public firms	32%	7%	11%
Percentage of cases where some pre-payment was made before the problem	17%	20%	40%
Percentage of cases where partial delivery was made	63%	17%	n.a.
Reason for the last occurence			
Normal manufacturing, storage or handling defect	0%	0%	50%
Supplier was unable to find goods or inputs	52%	47%	0%
Supplier faced equipment breakdown or transportation delay	8%	10%	8%
Transportation hazard or bureaucratic delay	0%	20%	0%
Supplier had insufficient capacity or stock to satisfy all customers	26%	13%	0%
Mistake, oversight, or carelessness of supplier and his employees	0%	10%	16%
Price went up or supplier's cost conditions changed dramatically	13%	0%	0%
Supplier cheated or was testing firm's tolerance for low quality	0%	0%	21%
Action taken by respondent:			
Wait or do nothing; order from elsewhere	61%	53%	18%
Insist on fulfillment of contract: complain, remind, exchange, etc.	13%	37%	63%
Agree to renegotiate the contract: carry over to next order, get a discount, etc.	13%	10%	8%
Cancel order, ask for a refund or compensation	13%	0%	13%
Number of observations (*)	*24*	*30*	*40*

(*) The exact number of valid answers varies slightly from one question to another.

Source: RPED Case Study Survey

Table 47. The Most Recent Problem With a Supplier and a Client

Type of problem:	With a supplier	With a client
Non-delivery	4%	n.a.
Partial delivery	7%	n.a.
Late delivery	36%	n.a.
Deficient quality	53%	n.a.
Non-payment	n.a.	15%
Partial payment	n.a.	4%
Late payment	n.a.	70%
Late pickup of custom order	n.a.	11%
Type of party:		
Individual trader or small trading firm	21%	32%
Large trading firm	11%	5%
Small manufacturer, producer, or craftsman	7%	7%
Large manufacturer or producer	52%	14%
Foreign firm	2%	2%
Kenyan public firm or government agency	7%	7%
Individual who is neither a producer or trader	0%	25%
Other	0%	9%
Percentage of cases where party is sole source of supply/demand	18%	2%
Percentage of cases where party is a relative or friend	0%	4%
Percentage of cases where the party belong to the same ethnic group	36%	43%
Percentage of cases where problem occured at first transaction	12%	19%
Number of years the respondent has been in business with client	11	5.5
Method of resolution of the problem		
Did nothing, just waited	32%	32%
Negotiated directly with supplier	68%	59%
Brought matter to arbitrator or court	0%	9%
Percentage of cases where the dispute was solved	82%	69%
Percentage of cases where the respondent was satisfied of the outcome	72%	70%
Percentage of cases still doing business with same party	96%	72%
Percentage of cases in which firm is still giving credit to the client	n.a.	42%
Number of observations (*)	*45*	*46*

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 48. Late Payment and Non-Payment by Firm Size

	All firms	Micro	Small	Medium	Large
Non-Payment					
Percent of firms with non-payment last year	37%	29%	32%	38%	49%
Average number of non-payment per year	3.5	2.7	2.6	3.4	5.3
Median number of non-payment per year	2	2	2	2	2
Late payment					
Percent of firms with late payment last year	60%	41%	63%	64%	62%
Average number of late payments per year	9.7	13.8	6.7	8.8	12.3
Median number of late payments per year	10	5	3	6	6

Source: RPED Panel Survey

Table 49. Characteristics of Late Payments and Non-Payments

Number of observations			134
Most recent case:			
Late payment			64%
Non-payment			36%
Cause for the late or non-payment			
Client refuses to pay			33%
Client paid only part of it; the rest is delayed			8%
Client went bankrupt			3%
Client has no money			17%
Client's business is mismanaged and inefficient			1%
Client died			2%
Client disappeared			8%
Vicious circle			4%
Other			23%
Action by the respondent			
Waited or did nothing			32%
Bargained and other forms of private negotiations			17%
Sought advice from a lawyer			9%
Went to court			13%
Threatened to go to the police			1%
Kept the goods as collateral or sold them			2%
Other			26%
Client type			
Individual			39%
Firm			46%
Public agency or government			13%
Other			1%
Relationship with the client			
Percent of cases in which was first transaction			22%
Length of acquaintance in years			6.3
	Relative or family member		3%
	From the same ethnic group		18%
	None of the above		79%
Bargaining, arbitration, and legal institutions			
Percent of cases in which direct bargaining was used			72%
Percent of cases in which arbitration was used			4%
Arbiter (5 cases only)	Public official	1	
	Business association	1	
	Traditional authority	1	
	Other	2	
Percent of cases in which threatened to go to police			4%
Percent of cases in which lawyer was hired			31%
Percent of cases in which went or threatened to go to court			29%
Outcome			
Percent of cases in which respondent is satisfied with the outcome			84%
Percent of cases in which still doing business with the client			43%

Source: RPED Panel Survey

Table 50. Payment Difficulties With Clients

	Non-payment	Late payment
Percentage of firms ever facing non-payment (partial or complete):	60%	81%
Average number of problems per month	0.7	1.3
Median number of problems per month	0.1	0.2
Last case of non- or partial payment:		
Time elapsed since the last case (in months)	20	11
Length of delay (in days)	n.a.	142
Percentage of cases involving exports:	3%	3%
Percentage of cases involving a public firm or government agency	14%	11%
Percentage of cases where full delivery was made	90%	84%
Percentage of cases where item sold was made to specification	35%	32%
Percentage of cases where partial payment was made	63%	56%
Percentage of cases involving a bounced check	30%	11%
Reason for non-payment:		
Client was unable to collect payment from his own customer	4%	12%
Client died or faced personal problem (sickness, death in the family, etc)	14%	0%
Client faced unspecified financial difficulties or management problems	18%	25%
Client moved or left the business or went bankrupt	11%	14%
Client was dishonest	32%	14%
Mistake, oversight, or carelessness by client or his staff	7%	6%
Client challenged the quality or timing of the good delivered	7%	6%
Respondent could not tell	7%	14%
Action taken by respondent:		
Wait or do nothing	32%	45%
Insist on prompt payment	46%	45%
Renegotiate payment terms	11%	11%
Sell goods kept as payment guarantee	11%	0
Number of observations (*)	*28*	*38*

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 51. Avoidance of Contractual Problems

With Suppliers	
Inspect goods at delivery or before final payment	38%
Give precise instructions when placing an order	28%
Order in advance, hold stocks, switch if problem, buy only what is available	21%
Deal with supplier with whom satisfactory business in the past	38%
Deal with suppliers on the basis of reputation and brand name	13%
Deal with suppliers recommended by people you know and trust	2%
Cultivate good relationship through visits, business lunches, etc	23%
Show understanding when difficulties arise	17%
Pay suppliers on time	13%
Rely on written proofs or formal accreditation	6%
No particular problem	4%
No way to avoid problems	4%
Number of observations	*47*
With Clients	
Insist on cash payment/complete payment upon delivery	58%
Insist on downpayment, deposit, or advance	32%
Deal with clients with whom satisfactory business in the past	40%
Assess clients through repeated interaction	23%
Suspend credit to bad payers; no new order before payment of old debt	17%
Deal with clients who have a good reputation in the business community	11%
Deal with clients who are non-business acquaintances	4%
Deal with clients recommended by people you know	8%
Screen clients carefully	17%
Rely on written proofs and legal institutions	9%
Keep goods as guarantee	6%
Asks for post-dated checks	2%
Show flexibility and understanding when difficulties arise	19%
Keep customers satisfied and avoid misunderstandings	15%
Number of observations	*53*

Source: RPED Case Study Survey

Table 52. Strategies to Avoid Problems by Firm Type

With suppliers	All Firms	Manuf.	Trade	Afric.	Non-Afric.	Micro	Small	Medium	Large
Apply care and caution	87%	78%	100%	89%	86%	95%	62%	89%	100%
Rely on trust and reputation	53%	70%	30%	16%	79%	45%	46%	78%	67%
Cultivate good relations	53%	41%	70%	26%	71%	55%	54%	56%	33%
Other	15%	11%	20%	21%	11%	14%	8%	22%	33%
	47	*27*	*20*	*19*	*28*	*22*	*13*	*9*	*3*
With clients									
Insist on cash payment and advances	91%	94%	86%	110%	78%	100%	93%	70%	80%
Rely on repeated interaction	79%	84%	73%	52%	97%	75%	43%	80%	180%
Rely on business reputation	23%	26%	18%	10%	31%	13%	21%	50%	20%
Rely on screening and legal guarantees	36%	48%	18%	29%	38%	21%	50%	30%	60%
Cultivate good relations	34%	35%	32%	29%	38%	29%	43%	40%	20%
	53	*31*	*22*	*21*	*32*	*24*	*14*	*10*	*5*

Source: RPED Case Study

Table 53. The Use of and Reliance on Legal Institutions

	With supplier	With client
Lawyers		
Percentage of firms ever consulting a lawyer regarding a supplier or client	6%	38%
Courts		
Percentage of firms ever threatening a supplier or client with court action	2%	33%
Percentage of firms ever to bring court action against a supplier or client	0%	21%
Intermediation		
Percentage of firms ever to seek third-party intermediation with a supplier or client	4%	17%
Number of cases in which intermediation was done by:		
a common friend		4
another businessman	2	2
a commercial association		1
a lawyer		1
a government institution		1
Arbitration		
Percentage of firms ever to use arbitration with a supplier or client	0%	6%
Number of cases in which the arbitrator was:		
another businessman		1
a lawyer		2
Police and violence		
Percentage of firms ever threatening to call the police regarding a supplier or client	2%	4%
Percentage of firms ever calling the police regarding a supplier or client	0%	4%
Percentage of firms ever resorting to verbal or physical abuse with supplier or client	4%	4%
Number of observations (*)	*52*	*56*

(*) The exact number of valid answers varies slightly from one question to another.
Source: RPED Case Study Survey

Table 54. Tobit and Probit regressions on indicators of access to credit

	Log-lik.	Const.	Ethnic	Worker	Manuf.	Age	Textile	Wood	Metal	N
Currently with overdraft	-23.112	-0.310	-0.037	**0.463**	-0.048	0.025	**-1.618**	**-1.443**	-0.212	55
	0.000	*0.724*	*0.943*	*0.018*	*0.930*	*0.151*	*0.033*	*0.089*	*0.798*	
Proportion of suppliers giving credit	-45.948	0.743	**-0.932**	0.087	**-0.655**	-0.005	**1.041**	**1.146**	0.443	52
		0.233	*0.016*	*0.508*	*0.074*	*0.623*	*0.019*	*0.018*	*0.323*	
Proportion of purchases on credit	-35.719	0.025	**-0.534**	**0.098**	**-0.276**	-0.003	**0.861**	**0.545**	**0.437**	54
		0.926	*0.001*	*0.096*	*0.074*	*0.459*	*0.000*	*0.011*	*0.037*	
Giving credit to customers	-25.316	0.329	**-0.976**	0.312	0.151	-0.005	0.280	-0.095	-0.327	55
	0.028	*0.715*	*0.041*	*0.163*	*0.740*	*0.715*	*0.671*	*0.893*	*0.618*	
Always able to borrow for investment	-10.587	7.691	**-2.783**	0.006	-0.402	-0.025	-6.970	-5.058	-5.604	34
	0.001	*0.868*	*0.006*	*0.981*	*0.738*	*0.378*	*0.880*	*0.913*	*0.903*	
Ever short of funds for investment	-10.490	-9.001	4.823	-0.122	5.340	-0.022	4.248	3.559	4.531	37
	0.000	*0.898*	*0.909*	*0.635*	*0.900*	*0.458*	*0.939*	*0.949*	*0.935*	
Ever in difficulty because cash flow	-19.020	-2.750	**1.234**	0.159	**1.637**	-0.048	0.487	0.976	**1.608**	52
	0.001	*0.024*	*0.056*	*0.466*	*0.017*	*0.173*	*0.556*	*0.262*	*0.061*	
Always able to borrow for liquidity	-13.633	1.986	**-1.807**	-0.331	-0.666	**0.082**	-0.469	-0.612	-0.463	36
	0.017	*0.112*	*0.008*	*0.192*	*0.370*	*0.059*	*0.623*	*0.560*	*0.643*	
Ever in problem repaying bank loan	-13.531	0.273	-1.133	-0.096	0.011	0.004	0.563	0.030	0.851	22
	0.911	*0.854*	*0.213*	*0.713*	*0.988*	*0.857*	*0.612*	*0.977*	*0.437*	
Ever in problem repaying supplier	-9.042	0.100	-0.349	-0.021	0.731	-0.023	**1.842**	4.798	1.656	38
	0.380	*0.927*	*0.671*	*0.957*	*0.477*	*0.279*	*0.058*	*0.894*	*0.134*	
Ever in problem collecting from client	-0.000	0.128	-10.31	5.392	-6.465	-0.053	9.804	4.513	13.071	37
	0.029	*1.000*	*0.949*	*0.945*	*0.966*	*0.992*	*0.967*	*0.978*	*0.963*	
Ever in problem collecting from friends	-0.000	-35.83	45.538	28.094	-44.50	-2.771	11.009	34.485	-39.75	13
	0.012	*0.946*	*0.949*	*0.939*	*0.921*	*0.927*	*0.985*	*0.964*	*0.959*	

Const.	Constant
Ethnic	Ethnic group of the owner/manager -- Kenyan-African=1, other=0
Worker	Log(number of firm employees + 1)
Manuf.	Dummy for manufacturing firms
Age	Age of the firm in years
Text.	Dummy for the textile and garment sector
Wood	Dummy for the wood sector
Metal	Dummy for the metal sector
N	Number of observations

The significance level of each coefficient is under it in italics.

Figure 1. Size Distribution of Firms and Financial Structure

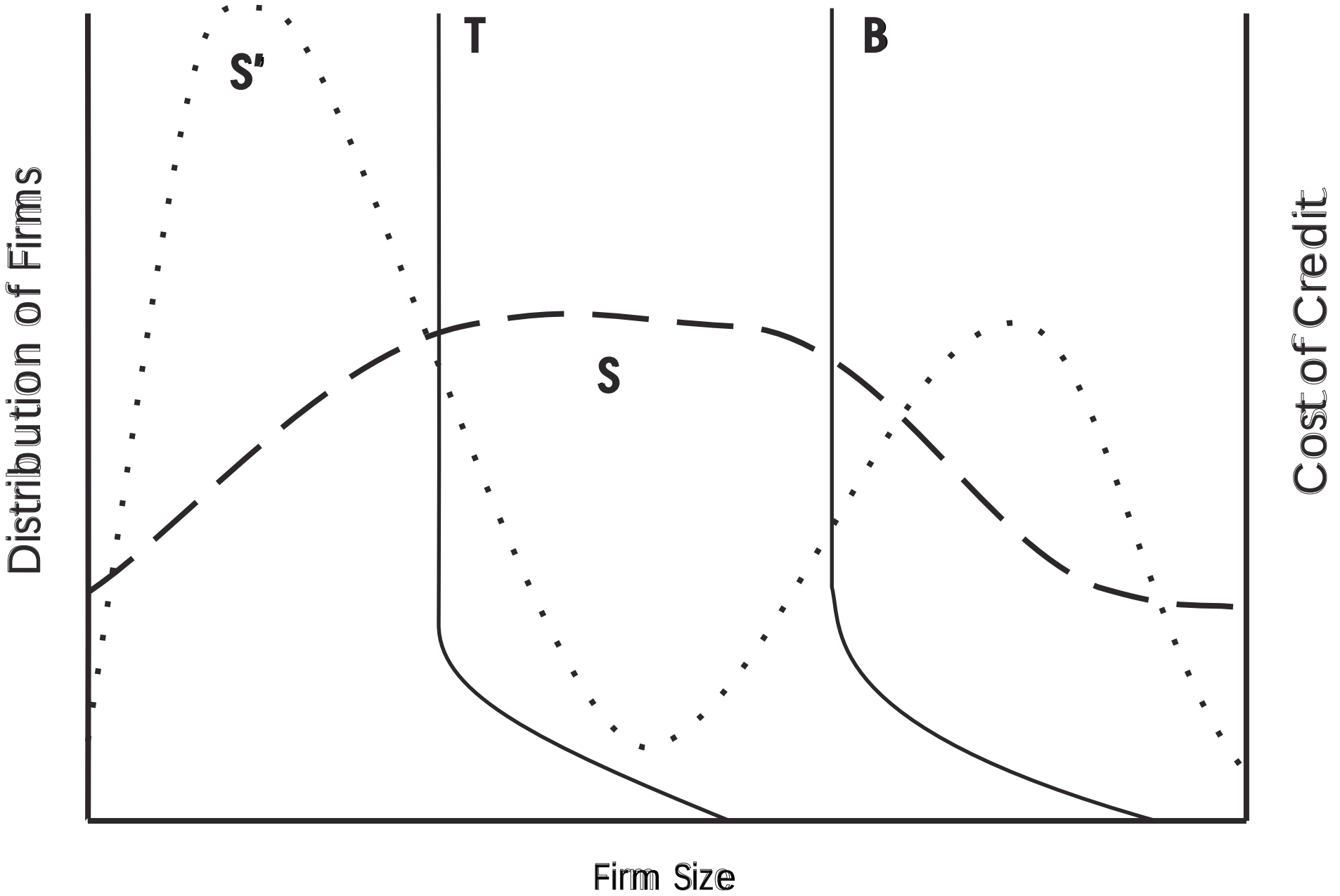

Figure 2. Evolution of TBill rate and Inflation