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FROM FRAGMENTATION TO EMBEDDEDNESS: TOWARDS A FRAMEWORK FOR THE INSTITUTIONAL ANALYSIS OF FINANCIAL MARKETS

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From Fragmentation to Embeddedness: Towards a Framework for the Institutional Analysis of Financial Markets

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1) Introduction

This paper seeks to develop a framework for understanding local financial markets, which is based in an institutional analysis of the financial intermediaries involved.

The institutional approach which is proposed suggests the need to focus on an analysis of the rules, monitoring and enforcement mechanisms of financial institutions and the financial services to which they give rise. Since the implementation of formal and informal rules is supported by underlying social, economic, political and cultural factors, this approach allows for a systematic analysis of the embeddedness of financial institutions. By the same means it allows for an understanding of the differential access by socio-economic groups to be theorised and investigated. Having set out this conceptual framework, the paper goes on to show its relevance to understanding the essential features of financial intermediaries in Karatina in Kenya.

2) New Institutional Economics and Fragmentation

[1] I am grateful to Haroon Akram-Lodhi, Ardeshir Sepehri, Barbara Harriss-White, Ben Rogaly, Chris Heady, James Copestake, Allister McGregor and other colleagues at Bath for comments on earlier drafts. Errors and omissions remain my own.

New institutional economics (NIE) has developed neo-classical analytical tools in relation to credit transactions in low-income countries by incorporating an understanding of the influence of imperfect information and transactions costs (Stiglitz and Weiss 1981; Hoff, Braverman et al. 1993). This work has demonstrated how credit markets are subject to information, monitoring and enforcement problems due to the inter-temporal basis of their transactions. These features give rise to moral hazard and adverse selection in credit transactions.[2]

The imperfect information paradigm has been used to explore a number of features of informal financial arrangements. In this approach, interest rates are understood to comprise four components: the cost of funds, risk of default, transactions costs of providing the service and profit, or a monopolistic component dependent on the alternatives available to the borrower. One key set of proponents - the 'Ohio School'[3] - argues that informal financial arrangements, especially moneylenders, charge relatively high interest rates because they face high risks of default and lack legal means of enforcement. They further argue that the cost of funds in low-income countries is necessarily high due to the general scarcity of liquidity and the opportunity cost of funds (Wai 1957). The NIE thesis therefore suggests that once differences in information, transactions costs and default risks are taken into account when analysing returns to lending, returns would be comparable and that there is a unifying underlying market for funds. Nissanke and Aryeetey (1998) therefore distinguish between a *segmented* market and a *fragmented* market on the basis that fragmentation is evident when returns adjusted for risks and transactions costs are not comparable between markets. The

[2] Moral hazard is the situation in which lending (or more often insurance) affects the behaviour of the borrower in that s/he may take less care or take more risks if the funds at stake are not their own, and this helps explain the use of collateral as a feature of credit markets. Adverse selection refers to the fact that if price alone is used to allocate credit then projects able to produce the highest returns are also likely to be riskier hence lowering portfolio quality. This problem therefore results in lenders rationing quantity at a given price.

term segmentation describes a process of normal specialisation between products which are evened out once risk-adjusted returns are calculated.

Furthermore, the argument is also applied from the borrower perspective. It is argued that a direct comparison of interest rates between the formal and informal sectors is an inadequate comparison of the actual costs faced by borrowers as a percentage of the loan amount. Borrowers must incur the physical costs of travel to local banks as well as the opportunity cost of time necessary to undertake the trip; the payment of administration fees for loan applications; and the likelihood that bribes are necessary to bank officials. Once these costs are included, they argue that the relative costs of formal finance rise and the seemingly high costs of informal finance represent the price of convenience, proximity and flexibility of financial arrangements.

Further examples of the use of the NIE to help explain informal financial arrangements have been the view that inter-linked transactions between credit and other goods or service markets (inputs, outputs or labour) can also be understood by the need to overcome information problems eg. about the future behaviour of clients in time based transactions (Hoff, Braverman et al. 1993). Finally, that informal financial arrangements are able to make use of local sources of knowledge and specific social mechanisms to overcome screening, monitoring and enforcement costs. For example, rotating savings and credit associations (ROSCAs) are able to operate due to the degree of 'insider' knowledge they have about each member and their ability to enforce compliance through the use of local social sanctions, such as non-cooperation in other aspects of daily life.

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[3] The Ohio School includes Dale Adams, J D von Pischke and Douglas Graham.

Despite the extensive development of this theoretical approach, the application of the theory faces considerable empirical problems. The most pervasive of these is the problem of measuring information and transactions costs. Floro and Yotopoulos (1991) in testing the NIE in the context of agricultural credit in the Philippines, test the hypothesis that interest rates reflect transactions costs of lending "as determined by the character of personalistic relations between the parties" (p17). The analysis examines inter-linked transactions with other markets. The approach therefore attempts to adjust returns on transactions in relation to the related costs involved in other markets. They conclude that these "personalistic relations" enable information barriers and moral hazard problems to be overcome between particular groups of borrowers and lenders. However, these "personalistic relations" are constructed on the basis of social and political institutions such as kinship, which they point out underlie the character-based lending which takes place. Information problems are therefore being overcome through the use of underlying social institutions.

Examining credit transactions in a village in Northern Nigeria, Udry (1993) finds that the majority of credit transactions occur within the village and between kin which enables the moral hazard problem to be minimised as information on wilful default is readily available. He also finds that the use of collateral and inter-linking of contracts with other markets is hardly used. He concludes that credit transactions in this context are therefore state-contingent contracts, that is, that the lender can readily verify whether the circumstances leading to default are merited due to the failure of the investment as a result of adverse shocks. In this case, the borrower is allowed to pay lower interest rates than if the investment is a success so resulting in a degree of risk pooling across households which can cope with idiosyncratic risks to individual households. However, the village presents a boundary to state-contingent lending of this kind and covariant risks faced by the village cannot be dealt

with, rather these are diversified through long distance trading relationships with traders accessing credit which they on-lend locally. Given this situation formal sector lenders also cannot compete with lenders within the community in making state-contingent loans without the development of forms of collateral.

In a recent study of informal financial arrangements in four African countries, the view that interest rates are higher in the informal sector for reasons of default risk and higher transactions costs was tested on data collected from informal financial providers about their methods of screening, monitoring and enforcement and their records of actual default. Nissanke and Aryeetey conclude that, contrary to the theory, costs incurred by lenders are lower in the informal sector than in the formal sector. They found that transactions costs were influenced by proximity to the lender and the extent of personal relations, and that the strength of such factors as social cohesion and community organisation influenced perceptions of risk (p245). Further, the experience of default in these arrangements also resulted in lower costs for these lenders suggesting that risk-adjusted returns are not comparable across market segments suggesting that the market for funds is strongly fragmented. They also find little evidence of financial layering on the supply side to overcome this fragmentation and enable greater integration in the market. The study concludes that rather than liberalisation resulting in a reduction in the size of the informal sector, the informal sector has shown growth and dynamism in responding to increasing demand from the real sector in the context of a more liberal economic and political climate. The regulatory environment, amongst other factors, has not developed in ways that enable such fragmentation to be overcome (Nissanke and Aryeetey 1998, 281).

These studies demonstrate that the analysis of imperfect information and transactions costs adds a considerable dimension of understanding to informal financial arrangements. Aleem's study (Aleem 1990)suggests that lenders can develop an information base on borrowers which means that they become locked in and face high exit costs from a particular arrangement which allows the lender to raise prices and extract rent from this information base despite over-supply in the market as a whole. Moreover he suggests that methods of information sharing exist between moneylenders which presents borrowers with problems of movement between lenders. Other researchers have also offered evidence of the difficulties clients face in exiting tied credit arrangements if they attempt to sell their crop elsewhere (Bell 1993; Olsen 1994). These tactics along with the heavy inter-linking of arrangements with output markets suggests that additional factors may be at work in fragmenting the market, not least the path-dependence involved in information accumulation by lenders about their clients over time which enables information itself to become an instrument of economic power (Harriss-White 1998, p272)

The studies by Floro and Yotopoulos and Nissanke and Aryeetey are more explicit about the presence of factors at work in the market which are not explained by their analysis. Both studies suggest that remaining variation in their results which is not accounted for by transactions, information and default costs might be explained by the presence of personal and social relations. Thus while, the new institutionalists explain the transmission of information and reduced transactions costs in informal financial arrangements through the presence of social institutions, these costs are clearly not open to measurement. Given this problem, focusing the analysis on costs to explain risk-adjusted returns presents an improved but incomplete explanation of empirical results.

In studying the multiplicity and detail of informal financial arrangements in The Gambia, Shipton concludes that transactions costs are too simple a concept to capture the "reasoning behind rural Gambian's individual or collective decisions about entrustments and obligations" (Shipton 1994, p284) and the multi-dimensional nature of these social ties and cultural traditions, and that "if these financial systems are to be understood as markets, they are certainly not unified or discrete ones" (p311).

In directing our attention to information, transactions costs and risks the NIE permits an appreciation of the fact that there are a variety of institutions at work which enable information to be transmitted and transactions costs to be reduced. However, these analyses also begin to make clear the fact that these institutions also represent the boundaries of particular market fragments, and that the tools of the NIE leave these boundaries unexplained. Further, merely highlighting the role of deeper social structures in explaining the operation of these arrangements is inadequate. It leaves a systematic analysis of the influence of these structures on market operation as a residual. The next section proposes an alternative approach to the conceptualisation of financial intermediaries.

3) Financial intermediation – an institutional approach

A significant range of financial institutions usually exists in any context including banks, savings and credit co-operative societies, para-statals, NGOs offering credit, moneylenders, informal savings groups such as ROSCAs and ASCRAs. All of these are solutions to the problem of financial intermediation – how to match the supply and demand for funds – which is in turn a collective action problem. The way in which collective action problems are solved is through the creation of institutions.

3.1) The design of institutions for collective action

In the broadest possible sense, people require rules of engagement to structure their interaction. Hence North describes institutions as "the rules of the game of a society, or more formally, as the humanly devised constraints that structure human interaction" (North 1990). As Ostrom puts it in her ground breaking work on institutions for the management of common property resources, ""Institutions" can be defined as the sets of working rules that are used to determine who is eligible to make decisions in some arena, what actions are allowed or constrained, what aggregation rules will be used, what procedures must be followed, what information must or must not be provided and what payoffs will be assigned to individuals dependent on their actions……. All rules contain prescriptions that forbid, permit or require some action or outcome" (Ostrom 1990, p51). This suggests a need to analyse the rules along with the procedures that are necessary to monitor conduct and enforce compliance.

Ostrom points out that theories of the firm and the state each provide a solution to the collective action problem. The firm operates by allowing an entrepreneur to negotiate contracts with a range of participants which specify the ways in which they will act in a co-ordinated way. In deciding whether or not to participate (assuming voluntary participation) each participant gives up some choices and as a result of this the entrepreneur can pay each of the agents retaining residual profits (or bearing losses). The implication of this model is that the entrepreneur is motivated to organise the activity efficiently and maximise profits. The state is another and particular solution to the collective action problem. The state by having a monopoly of the use of force can impose rules and enforce them using sanctions.

In highlighting the role of the state and the firm as collective action institutions Ostrom suggests that the "absence of a theory that would identify the mechanisms by which a *group of individuals* could organise themselves" (p40, my italics) become clear. Her work then seeks to identify the design principles which underlie successful attempts by groups of individuals to manage common property rights (CPRs). Ostrom's case of CPRs managed by groups, contrasts with private and state ownership solutions to the management of environmental resources in similar ways that the case of credit cooperative societies and informal savings groups represent co-operative solutions contrasting to private and state ownership in the case of financial institutions. The main institutions for financial intermediation present in most contexts therefore mirror the three core types of institutions which have been developed to address the core collective action problems that economic interaction produces: the state, the firm and co-operative solutions.

3.2) Developing a conceptual framework for the analysis of financial institutions

If we take the range of financial intermediaries that usually exist, we can locate them within particular approaches to solving the collective action problem as indicated in table 1. Institutions have been classified into 5 categories:

1) Firm based financial intermediaries such as banks and non-banking financial institutions (NBFIs) which produce a solution to the financial intermediation problem which results in bi-lateral contracts between the institution, savers and borrowers independently of each other
2) Co-operative solutions which are by definition mutually owned institutions for financial intermediation eg SACCOs, ASCRAs and ROSCAs. In these institutions borrowers from the

institution must first be members (ie savers) in the institution and hence contracts to borrow are contingent on membership.

3) State based mechanisms of financial intermediation such as parastatal lenders. These are based on the state's ability to tax and transfer resources from one group to another. These are very similar to

4) NGO originated MFOs[4] which are also a vehicle in the first instance for the transfer of funds– in this case donor funds (public and private) and which are based in a collective action institution which has a charitable intent.

5) Direct lending ie. moneylending and reciprocal borrowing between friends and relatives. While these can be seen as financial institutions, they are not collective action institutions as the intermediation of funds is between a single saver and one or more borrowers and in this context - while there are still a broad set of rules involved – this involves bi-lateral contracts and does not represent a form of collective action.

[4] MFOs have come to refer to all types of organisations offering finance to poor people including eg credit unions. Here we therefore distinguish NGO originated MFOs from other institutional forms.

Table 1: Classification of financial institutions by form of collective action

Form of collective action	Type of financial institution	Nature of the institution
FIRMS	Banks / NBFIs	Financial intermediaries which operate according to the theory of the firm. They can take savings and give loans independently of each other because saving and borrowing from the bank are essentially independent contracts with the bank. Objective of the institution is to intermediate funds and make profits for owners / equity shareholders. Ownership may be by the state or private investors.
CO-OPERATIVE	SACCOs	Co-operatives are a collective action institution and have clearly defined boundaries of membership, rules, monitoring and enforcement mechanisms.
	ASCRAs and ROSCAs	Similar to co-operatives, they are a collective action institution for financial intermediation based in local understanding of mechanisms for monitoring and enforcement
STATE - transfer based	Parastatal lending institutions	Intermediates funds on behalf of the state - thus an indirect form of financial intermediation. The collective action problem of intermediation is solved by the state in a very specific way and this may be due to an analysis of “market failure”. The parastatal’s remit and ability to make profit is in part a function of the incentive structure imposed upon it by the state.
NGOs Transfer based	NGO originated MFOs	NGO based MFOs usually intermediate funds from donors and often use group based lending thus imposing a collective action solution on borrowers but their origins as NGOs are in a completely different type of collective action institution, ie usually a charity and these are privately owned institutions.
Direct lending i.e. does not involve collective action	Moneylenders	Private individuals, who lend their own money, hence are not a collective action institution because they do not take savings. Alternatively may be formal companies but operate under the theory of the firm with an objective of making profits. However their function as a financial intermediary is limited to their intermediating shareholder funds as they do not take savings to on-lend.

	Lending to friends and relatives (reciprocal lending)	Private agreements, between friends and relatives whose rules, monitoring and enforcement mechanisms are mutually understood and agreed. These are bi-laterally negotiated and are not therefore collective action institutions.

MFOs, with state based financial institutions, are special cases of the financial intermediation problem which partly arise out of the view that collective action solutions to the financial intermediation problem based in banks have failed at the local level and these failures are usually referred to as "market failures". However, MFOs utilising group based lending attempt to use the collective action of borrowers in order to solve one aspect of the intermediation problem which involves information and transaction costs in the making of lending decisions. Para-statals, on the other hand, have tended to utilise individual lending approaches based in the same principles as bank loans.

It should be noted that government owned banks fall in the first category rather than that of the state as their primary collective action form is that of a firm as the rules, monitoring and enforcement mechanisms are the same as they are for privately owned banks.

In order to analyse these institutional forms further, we can examine the rules, monitoring, and enforcement mechanisms that operate in each of these institutional forms. In her investigation into the design principles for CPRs, Ostrom proposes that rules for the operation of institutions are nested in levels and these are 3 tiered –

1) operational rules - affecting day to day decisions regarding access to resource units, monitoring and sanctions and the operational level therefore involves processes of appropriation, provision, monitoring and enforcement

2) collective choice rules which indirectly affect operational rules - they are the rules used in making policies and the management and adjudication of policy decisions

3) constitutional rules - affect operational activities and results through their effect in determining who is eligible and determining the specific rules to be used in crafting the set of collective choice rules that in turn affect the set of operational rules. Any group that is going to undertake collective action has to agree a constitution in which the collective action and operational rules are embedded. The constitution has in turn a set of rules about how it can be changed.

These are accompanied by sets of mechanisms for monitoring and enforcement of the rules, ie mechanisms through which it will be known whether the rules have been broken and how transgression will be punished. Thus we can examine the rules under which financial institutions are constituted and the monitoring and enforcement mechanisms they require to enable these rules to operate and this is done in table 2 for a range of financial intermediaries.

Thus banks are a specific form of financial intermediary which operate as firms. Their management is appointed by shareholders who monitor performance. They have specific additional legislation because they are firms who can take other people's money as deposits and hence Banking Law is largely concerned with creating a framework within which to

monitor this activity. The institutional framework for savers and borrowers is that they enter into contracts with the bank to deposit or borrow funds which are governed by banking law.

In the sense of banks operating as institutions, we are interested in two aspects of their institutional arrangements. First is the monitoring and enforcement mechanisms related to the operation of it as a firm, and second is the particular institutional arrangements that affect the nature of its financial intermediation. Hence it is the management appointed by shareholders who design loan and savings services with the intention of making profits for the shareholders from this service. The means of monitoring and enforcing the rules that are related to saving and borrowing – especially borrowing – are the responsibility of the management of the bank but may be detailed in law also. For example, requirements to lend against collateral, the means of enforcement of eg loan repayment involves the management of the bank in using contract law to realise collateral in the event of non-payment. These are fundamental aspects of the nature of the service that banks can offer as financial intermediaries.

By contrast to the institutional form of a bank, in savings and credit co-operatives (SACCOs) the members are both the owners and managers of the organisation. In most countries Co-operative Law governs their operations and this involves the election of a Management Committee from the members and a range of other sub-committees. It is these that formulate the operational rules and monitor their implementation. In larger SACCOs the Management committee may appoint professional and paid managers but responsibility for management decisions lies ultimately with the members through the committee and annual general meeting structure. It is through these mechanisms that the members can directly influence the services that are provided, the profits that are made and the use of those profits.

In the mutual sector the key difference between SACCOs and group based systems is the lack of formal registration with government – in this sense they are 'informal'. Some ASCRAs may operate very similarly having committee based structures. ROSCAs are the simplest form of financial intermediation with mutual ownership that can exist and range in practice from well organised and established groups to extremely loosely run systems. In all of these types of institution members have a voice.

The mechanisms for enforcement of payment in these informal mutually owned institutions is dependent on a range of other institutions. They may be able to utilise the civil law in the case of debts, however it is often the case that they do not do this because of cost or the requirements involved of following these routes, and instead depend on a range of other types of sanction eg the seizure of a members assets, or informal sanctions such a shame and reputation.

Para-statal lending institutions are distinct from eg government owned banks. Para-statal lending institutions are ones that do not raise savings in the form of deposits, rather the government uses its powers of taxation to raise funds which it can then intermediate through the lending institution. The management is appointed by the government, the institution is accountable to government through the mechanism of its Act and whatever aspect of legislative rules which may also apply to para-statals. The enforcement of repayment of loans depends on the legal framework as it does for banks.

NGO based microfinance offers financial intermediation on the basis of transfers[5] which are on-lent to their target populations. With the growth of 'market driven' thinking in the NGO microfinance sector there are moves underway in many countries for MFOs to shift from the NGO sector into either the Banking sector – or in some cases to create a new regulatory category to cover MFOs. However it is most likely to be the case that these will be positioned within the banking sector operating as firms – the difference with banks will be in the nature of their capitalisation and related regulatory requirements. Some institutions within this category can be seen as in the process of transition from this category into either the firm based banks category or a new one still to be determined.

[5] It is the case that in some countries, Bangladesh being the prime example, NGOs have taken and intermediated savings. This is illegal with respect to constitutional rules of NGOs and banks but is allowed to happen due to regulatory forebearance and aptly demonstrates how the way in which these institutions operate is a function of the wider environment.

Table 2: Rules, monitoring and enforcement mechanisms for different types of financial intermediary

	FIRMS	MUTUALS		
	Banks	SACCOs	ASCRAs	ROSCAs
Legislated rules / Constitutional rules	Banking laws - mainly to protect depositors Company law	Co-operative law	No legislated rules. May be a written constitution but this may be more heavily based on members implicit understanding of a set of rules.	No legislated rules. May be a written constitution but this may be more heavily based on members implicit understanding of a set of rules.
Collective action rules	Made by shareholders and Board within constraints of legal framework	Made by members (who are savers) – AGM etc which can modify the constitution and monitor management	Members (savers) – election of group officials	Members (savers) – election of group officials
Operational rules	Eg lending policies made by Board and management	Made by Management committee but proscribed by law	Members may be in everyday operational rule implementation as well as officials	Members may be in everyday operational rule implementation as well as officials
Monitoring mechanisms	?? Externally monitored by central bank ?? Profitability monitored by shareholders ?? Management has responsibility for monitoring of	AGMs, management committee meetings, sub-committee meetings. In larger SACCOs may have a paid manager and staff for day to day operations.	Monitoring via regular meetings at which repayments made and loans made, very easy to know when someone hasn't paid.	Monitoring in ROSCAs very easy as know when someone hasn't paid because no money for next person.

	financial services			
Enforcement mechanisms / Graduated sanctions	Regulations imposed by Central Bank Profits/losses to shareholders Loan enforcement backed by contract law for realisation of collateral	For late/non payment: - Use of guarantors, which is related to peer pressure and reputation - Attachment of shares	For late/non payment: Possibly financial penalties Seizure of assets Exclusion from group and/or social sanctions such as shame/ reputation	For late/non payment: Possibly financial penalties Seizure of assets Exclusion from group and/or social sanctions such as shame/ reputation

	TRANSFER BASED STATE	CHARITY	DIRECT LENDING	
	Para-statals	NGO originated MFOs	Moneylenders	Localised reciprocity
Legislated rules / Constitutional rules	Constituted by act of parliament	Constituted under charity or NGO laws	May be national law which may specify operational rules to extent of pricing (eg laws against usury) and legitimate mechanisms for enforcement Company law may be used	None
Collective action rules	None - Management appointed by government – accountability laid down in Act	Board appointed by invitation – in turn they appoint management	None (unless involves a private shareholder company)	None
Operational rules	Operational rules made by management	Operational rules made in accordance with overall vision and mission set by board. For lending – programmes designed and rules set by management	Set by moneylender – borrower enters into an agreement which may be verbal or written.	Usually set by mutual agreement between lender and borrower
Monitoring mechanisms	Monitoring by Government in accordance with Para-statal	Monitoring of the NGO by eg Charity Commissioners Monitoring of lending is	If a company has to abide by company law	Monitoring by both lender and borrower

	legislation Monitoring of loans by management	internal only		
Enforcement mechanisms / Graduated sanctions	Loan enforcement backed by contract law for realisation of collateral	May use social sanctions to discipline borrowers in group based finance systems	May use law courts to enforce contract if written; may use informal enforcement mechanisms eg seizure of items or social sanctions (such as damage to reputation)	May use law or more likely to use social sanctions

However, NGO based microfinance is also a hybrid. In using group based approaches that are familiar to the group based mutual ownership systems, they seek to utilise aspects of the way in which these approaches operate in their own approach. However the difference in the use of mutual liability systems used by MFOs is that they impose mutual liability on borrowers as a condition of lending whereas in the mutualist group based systems this is an endemic feature – since one member is borrowing another member's savings, her potential default means that the member necessarily risks losing her money.

Approaching the analysis of financial institutions in this way highlights the importance of the nature of ownership of the institution and the link between savers and borrowers in each type of institution that results.

3.4) Implications of the institutional approach

Analysing financial institutions as is done in table 2 leads us to a further series of propositions. First, it enables us to see that the effectiveness of certain types of financial intermediary is related to the effectiveness with which the rules can in practice be monitored and enforced. Thus it becomes apparent that the ability of a financial intermediary to operate is in turn dependent on a range of other sets of rules, monitoring and enforcement mechanisms. One set of such institutions is those of property law, the effectiveness of the legal system in enabling collateral to be recovered and the effectiveness of the regulatory and supervisory structures.

This therefore highlights the fact that there are a range of other institutions which support the ability of a set of financial institutions to actually function as financial intermediaries. The range of these institutions is wide and encompasses institutions which arise out of aspects of

culture (eg moral and religious values), social rules and norms, and political and economic relationships. Thus for example underlying political and economic structures influence the way in which the rules are negotiated – and the way in which they are monitored and enforced in particular contexts. This framework therefore suggests that an investigation of the functioning of financial intermediaries in a given context requires examination of the underlying institutions that influence the ways in which the rules are formulated, monitored and enforced. These can help explain the emergence and relative performance of different types of institution.

Second, it forces us to consider the question how can the supply of institutions for collective action - or in this case financial intermediation – be explained? We can observe that in some contexts informal group based systems may be more abundant than others; in others money-lending for example may be more pervasive In the former case, a group of individuals have been able to switch from acting individually to co-ordinating their activities and can share the benefits of this transformation.

We can propose that the array of financial institutions that exist in a particular context arise out of the ways in which solutions to the collective action problem have emerged out of underlying social structures. These responses are embedded in the social, cultural, economic and political environment in which they are operating both historically and currently. Hence the ability of groups of individuals to act collectively will be a product of these influences. This is equally the case, for example, for the emergence of entrepreneurs who are able to operate firms effectively.

Finally, it becomes apparent through this approach that faced with an array of financial institutions, the ability of individuals to access services ie to interact with the rules of these institutions, will depend on their own endowment of social, cultural, economic and political resources. Without the required social resources an individual will not be able to engage in group based systems, for example. Economic endowments in terms of land and assets will determine their ability to obtain loans which require physical collateral. Age and gender may be a key factor in determining whether someone owns land which is inherited as young men may not yet have inherited land and women may never get the opportunity. We can therefore suggest that patterns of access which are embedded in their social and economic characteristics such as gender, age, caste, ethnicity are likely to arise.

To summarise, the conceptual framework proposed here suggests that:

1) to analyse the financial market it is necessary to go beyond an analysis of products to an analysis of the financial institutions which give rise to these products
2) that financial institutions are solutions to the financial intermediation problem which is a collectve action problem. There are essentially three types of solution based on the firm, the state and mutuality and these institutions can be analysed in terms of the rules, monitoring and enforcement mechanisms that enable them to function
3) the actual rules, monitoring and enforcement mechanisms which are implemented are a result of the way they interact with politics, social relations, economic structures and cultures on the ground.
4) At a societal level, the supply of institutions and the nature of the solutions which is generated is embedded in its political, social, economic and cultural resources both historically and currently. Thus, for example, the existence of mutualist solutions to the

collective action problem will depend on the way in which its wider social and political institutions support their emergence.

5) That patterns of financial service use will be discernible in relation to social and economic characteristics such as gender, age, ethnicity, caste, religion, wealth and so on due to the way in which these socio-economic characteristics enable or disable people from interacting with the formal and informal rules of the financial institutions.

This therefore suggests an approach which focuses on an analysis of the rules, monitoring and enforcement mechanisms of financial institutions and the financial services to which they give rise. Through this we can develop a more fruitful analysis of the ways in which financial services operate and the ability of particular socio-economic groups to use them.

One of the implications of this approach is that in order to understand the behaviour of users of financial services, it is necessary to develop a profile of services which takes into account their institutional basis. Thus while economists have tended to focus on price, and latterly have taken into account transactions costs, there are a range of non-price factors that are attached to each product.

4) An overview of financial intermediaries in Karatina

The purpose of this section is to demonstrate, with a preliminary overview of the Karatina financial sector, the limitations of the transactions costs analysis and to emphasise the need for an institutionally based analysis.

Karatina is a small market town with a population of 24,000 (1989 census) situated on the slopes of Mt Kenya at an altitude of some 5,500 feet. It lies on the main road from Nairobi to

Nyeri and the line of rail passes through Karatina on its way to Nanyuki. It is an area whose economy is predominantly agricultural and the town lies at the convergence of the coffee and tea growing zones. It is famed for its open air market which is reportedly the second largest such space in Africa. However, the market's heyday appears past in particular as the tomato growing and trading boom of the early 1990s has been hit by the spread of tomato growing to other areas of the country nearer to key markets such as Mombasa, and climatic and wider economic conditions have led to the deterioration of the trading opportunities in the last 2-3 years.

It is largely due to its past vibrancy as a market centre that there is an abundance of formal financial institutions in the town. Four of the five main banks with a national presence operate – Barclays, Kenya Commercial, National Bank of Kenya and Co-operative Bank. Standard Chartered also had a presence there until 1995. This is complemented by a building society - Equity, and a small presence of Consolidated Finance - a non-bank financial intermediary which was the product of a number of bank failures in the early 1990s (Brownbridge and Harvey 1998) and which was only offering deposit facilities at the time of the study, then closed at the end of 2000.

Financial intermediaries with para-statal and government origins comprise the PostBank which while not having a branch in Karatina offers its basic savings account via the Post Office. The Agriculture Finance Corporation (AFC) closed its office in Karatina in 1999 and consolidated its operations in Nyeri, however its lending volume in the area has been extremely low in recent years. The Industrial and Commercial Development Corporation (ICDC) is a successful para-statal which in this area mainly offers commercial sector loans for between Kshs200,000 to Kshs1m and also operates from Nyeri. Kenya Industrial Estates

(KIE) has a Karatina office where it offers its individual lending programme for the informal sector with loans of Kshs300-500,000. Finally the Joint Loans Board run by the Ministry of Trade and the Local Authority is virtually moribund as it has very little new money and recovery rates are very low – loans in the programme average Kshs50,000.

The next main sector of financial institutions is the co-operative sector or savings and credit co-operatives (SACCOs). In Kenya SACCOs are referred to as rural or urban – with urban SACCOs referring to employee based co-operatives. Here we refer to the basis of the common bond and highlight three types – those based in cash crops, employment and a new and growing set of SACCOs mainly based in the transport sector among matatu owners.

There are two SACCOs in Karatina which are based on the common bond of being tea farmers: one, Mathira Tea Grower's SACCO which was established in 1990 and started offering "front office services" (ie. basic deposit accounts to non-members as well as members) from 1997. In 2000 the Nyeri District Tea Growers SACCO also opened an office in Karatina. These two SACCOs are competing for the membership of the approximately 6000 tea farmers in the Division.

The coffee co-operative system has been in a state of transition in the late 1990s. The division was served by the so-called 'giant Mathira' Coffee Co-operative - a coffee marketing co-operative of some 25000 smallholder coffee farmers. This was was split in 1997 into 13 small co-operative societies which manage between one and four coffee factories each. A further axis of change has been the splitting off of the Union Banking Section of the marketing co-operative into an independent Nyeri Farmer's Society SACCO

which has a branch in Karatina. This re-organisation has partly been the cause of relatively low lending volumes in the past 2-3 years.

There are four small employee based SACCOs in and around Karatina with between 50 and 300 members each and which are based in the medium sized institutional employers such as the Town Council and Tumutumu Hospital and Schools. Alongside these is the Nyeri Teacher's SACCO which caters mainly for primary school teachers in the district. However other national employers run SACCOs based in Nairobi of which their staff in the Karatina area are members - such as Securicor who have their own "Nyati" SACCO, the Office of the President's "Harambee" SACCO (with over 1 million members the largest in the country), SACCOs based in other government ministries and the Secondary school teachers SACCO – "Mwalimu" SACCO.

SACCOs based on the common bond of transport and business are a development of the 1990s. Transport SACCOs have grown up around associations of matatu owners operating particular routes. In Karatina there are four which have an obvious presence although one has its headquarters in Nyeri (2NK). Business SACCOs are two: one operated by the Nyeri Chamber of Commerce (Biashara SACCO) and another somewhat unusual SACCO set up in Karatina by a local stockbroker where the common bond is ownership of shares in the Nairobi Stock Exchange.

The NGO based microfinance sector can be split into three sub-categories. First are what we might call the 'mainstream' NGOs which have donor or other external support. The biggest of these programmes in Karatina is Kenya Women Finance Trust where it has based its Mt Kenya Region Branch. They are followed by FAULU (which was just opening a sub-office

in Karatina at the time of the research) and the Small and Micro Enterprise Programme (SMEP) whose origins are within the National Council of Churches of Kenya (NCCK). Finally, K-REP whose origins are an NGO based MFO became registered as a bank in 1999. The last three all having their main office for the area in Nyeri but an active presence in Karatina with staff making at least weekly visits. These organisations all lend out their own capital fund to members whose savings are lodged in the bank as partial collateral for the loans.

A further microfinance model is operated by three organisations from their base in Karatina - Partnership for Productivity; Women's Enterprise Development Institute (WEDI) and Small Enterprise Development Institute (SEDI). In this model, women form groups and on-lend their own savings to each other in the form of a revolving loan fund (RLF) and which is essentially an Accumulating Savings and Credit Association (ASCRA) model . They meet monthly and the role of the NGO is to provide management services to the group. These organisations are independent of donor funding.

The final category of NGO based microfinance is for agricultural lending provided by the Smallholder Irrigation Scheme Development Organisation (SISDO) and operates in a wide area around Mt Kenya. This works with groups of farmers to develop irrigation schemes and also with groups who get credit for zero-grazing or farm inputs. The programme has suffered funding difficulties and is currently supporting only a few groups around Karatina.

Next we come to the 'informal' financial sector with informal group based systems and moneylenders both being in evidence. Karatina abounds with group based financial arrangements, called "giteti", and these also fall into two categories. Rotating Savings and

Credit Association (ROSCAs) are the most common model in which members save on a regular basis and one member takes the pot in the order in which their names are balloted. These systems thrive especially in and around the open air market. Women here may be members of a number of these ROSCAs. The oldest ROSCA we found in operation was one which started in 1976. The ballot of members has never been re-drawn. What is perhaps more unusual about these ROSCAs is that in some cases, members do not know each other. The money is collected by a "collector" and as members drop out for whatever reason they are replaced by people who are introduced to the collector. Since the group never meets then over time it is only the collector who may actually know all of the members.

Fewer in number but still numerous are ASCRAs, in which members save and on lend the fund to each other. Interest is accumulated into the fund and used to pay out a dividend. Some of these systems are time-bound with a fixed point at which members expect the pot to be paid out including the dividend.

It is common for local people to deny the existence of moneylenders in Karatina and many Kenyans believe moneylending to be illegal. However the Money Lenders Act was repealed in 1987 and the activity does not require a license. Seven moneylenders were interviewed in the course of this research. Some are quite well known and have been operating their businesses since the 1970s. Others are quite new entrants who have moved to the area with their jobs and whose main market is their work colleagues. Informal credit in the course of trade relationships was examined but there was no evidence of systematic trade credit arrangements. Goods may be provided on credit between wholesaler and retailer, or retailer and customer but the basis of these arrangements is personal knowledge of the trustworthiness of the client and terms negotiated on a case by case basis.

Finally, there are three shops that are the local branches of Nairobi based companies that systematically offer hire purchase arrangements on household consumer durable goods such as TVs, radios, fridges, and sofas.

This brief overview demonstrates the massive range and diversity of types of financial intermediary that exist in this area. Table 3 gives an overview of volumes in the market for the banking, government, NGO and SACCO sectors based on data supplied by financial institutions. This data does not capture activity in the informal sector but serves to establish the broad parameters of the formal and semi-formal suppliers. This demonstrates that the banks capture 73% of deposits while accounting for 23% of savings accounts (individuals might have multiple accounts). Non-bank financial institutions while handling a relatively small proportion of deposits account for a similar number again of savings accounts. This result is a function of the Equity Building Society which has been expanding rapidly and attracting many small savers.

The SACCO sector accounts for the majority of remaining deposits - some 15%, with cash crop SACCOs dominating and while they have 9% of deposits they account for 33% of savings accounts. Again showing their bias towards small savers. The MFO sector accounts for some 5% of deposits and 18% of savings accounts. However the management service MFOs dominate in terms of numbers of savers compared to 'mainstream' MFOs.

When turning to the loan side we can see that the performance of the banks in on-lending locally mobilised deposits is low at 37% although still representing some 53% of loans outstanding. The proportion for the NBFIs substantially higher at 62% although they

represent only 9% of loans outstanding. The cash crop SACCOs have a similarly low loan to deposit ratio at 30%. This has been caused by the transitional problems that the coffee co-operative is facing as it transforms into a SACCO from a Union run Banking Section, and alongside this the splitting up of the coffee co-operative into smaller societies. These two factors in the context of poor coffee prices and low payments to farmers has resulted in farmers not clearing past loans and difficulties for the SACCO in granting new loans and hence the erosion of their loan to deposit ratio. By contrast the employee and transport SACCOs appear to have healthy levels of onlending at some 90% of deposits.

Table 3: Savings and loans performance of financial institutions in Karatina

(Kshs'000s)	Note	Deposits	*% of total*	Members/ savings accs	*% of total*	Loans	*%of total*	Number of loans	Average loan size	Loan-deposit%
Formal sector:										
Banks		1,148,593	*73*	24,543	*23*	429,995	*53*	n/a		37
NBFIs	1	113,973	*7*	25,663	*24*	70,995	*9*	n/a		62
Parastatals		0		0	*0*	29,961	*4*	232	129	
Sub-total		1,262,566	*81*	50,206	*46*	530,951	*65*			42
MFO sector:										
Mainstream MFOs	2	18,629	*1*	1,958	*2*	28,411	*3*	1,387	20	153
Management service MFOs	3	65,984	*4*	17,358	*16*	126,234	*15*	12,151	10	191
Sub-total		84,613	*5*	19,316	*18*	154,645	*19*	13,538	11	183
SACCOs:										
Cash-crop SACCOs	4	135,771	*9*	35,993	*33*	40,902	*5*	3,255	13	30
Employee SACCOs		90,150	*6*	2,277	*2*	80,117	*10*	1,888	42	89
Transport/Business SACCOs		12,560	*1*	396	*0*	11,448	*1*	164	70	91
Sub-total		238,481	*15*	38,666	*36*	132,467	*16*	5,307	25	56
TOTAL		1,567,031	*101*	108,188	*100*	818,063	*100*			52

NOTES:

1. Data for these institutions is incomplete

2. Mainstream MFO's deposits are in the main moblised by the MFO but deposited in the bank so are excluded from total deposits

3. This total has been estimated based on averages from a sample of groups of one of the organisations.

4. Data for these institutions is incomplete

The loan to deposit ratios of the MFO sector at over 100% require explanation. In the case of the mainstream MFOs, they mobilise savings from members (which are banked) and lend their members more than their savings from their donor originated funds. The reason why management service MFOs have a loan deposit ratio of 191% is for a completely different reason. The way the managed ASCRAs work is that members save shares – as members take loans from the fund and repay interest, the fund grows and is higher than the value of shares - but the shares are never re-valued in the light of the growth of the fund, they remain nominal. Hence the members outstanding loans are usually higher than their savings in the fund.

We next turn to an overview of the interest rates on the main deposit and loan products.

4.1) Deposits

The following points summarise the nominal interest rates that deposit products offer:

?? Ordinary deposit accounts offered by banks, NBFIs and SACCO front office services[6] offer simple interest annual returns of between 3% and 8% per annum.

?? Fixed deposit account returns tend to peak for 3 month periods as the financial institutions tend to invest in 3 month Government Treasury Bills (TBs). Since TBs are not offered for longer periods, rates on fixed deposit accounts for 6,9 or 12 months fall off, as this relies on the banks re-investing and TB rates are by no means assured.

[6] Since 1995 SACCOs have opened what are called "front offices" - these are a counter facility to deposit and withdraw from savings accounts just like a bank. They can offer these deposit accounts to members and non-members. The accounts are distinct from members share accounts – traditionally called 'back office'. In the last year some SACCOs have even started a range of loan products against these deposits. At present there are no arrangements for deposit protection of deposits taken in the front office.

?? SACCOs –dividends to SACCO shares lie between 0 and 5% annually and a minimum investment period of one year before shares are eligible for dividends in the small locally based employee SACCOs. SACCOs which are in their first 5 years of operation are very unlikely to offer savers any kind of dividend during this period. For some of the larger SACCOs returns of 6-7% are possible such as the Nyeri District teachers SACCO. Also members in tea saccos make non-withdrawable deposits which tend to earn an interest rate of around 6-7% but this - similarly to dividends – is a rate that is declared at the end of the financial year. Shares in SACCOs and - as there name implies – non-withdrawable deposits cannot be withdrawn at will as in the case of an ordinary savings account. In most cases withdrawal of shares is only possible on exit from the organisation.

?? ASCRAs – dividends to ASCRA members (MFO and independents) ranged from around 15% upwards again since these are annual dividends you have to invest in the ASCRA for at least one year. These returns may continue over time and some ASCRAs offered dividends of over 50% on savings per annum.

The range of potential returns is therefore significant – from 0% (nominal) in current accounts and ROSCAs to 50% and above in ASCRAs, with returns to SACCO shares requiring long term investment in the SACCO.

4.2) Loans

Interest rates are quoted by financial organisations in many different ways. The banking standard is to quote annual interest rates on declining balance and this is also practiced by NBFIs and para-statals. However, microfinance organisations, moneylenders, and ASCRAs tend to quote their interest rates as monthly flat rates. This tends to represent their interest rates as lower than the formal institutions although this is not in fact the case. SACCO

interest rates were fixed at 12% per annum declining balance until de-regulation in 1997. A small number of SACCOs have now changed their rates but many are still applying 12% per annum.

In order to calculate interest rates on a comparable basis, they were calculated using an internal rate of return (IRR) method for a standard loan size over one year and included all of the application and related transaction costs which the financial organisation levies. Where members are required have a stock of savings and/or to continue saving while repaying the loan this is also taken into the IRR calculation to establish the full financial cost of borrowing from this source. This method therefore establishes an interest rate for the net additional liquidity gained through borrowing.

The main features of loan interest rates are as follows:

?? Moneylenders charging some 30% per month (360% p.a) are by far the most expensive funds available.

?? MFO managed ASCRAs offer advances at a rate of 10% per month on outstanding balance and members can borrow twice their savings. This therefore computes to 20% per month and a declining balance rate of 240% per annum.

?? Loans for periods of between 6 and 12 months from either mainstream MFOs or MFO managed ASCRAs offered interest rates in the region of 60 to 120%. Individual enterprise lending involves KIE and the Co-operative Bank's lending programme for small business and these organisations charge interest rates of between 40% and 62%.

?? Bank interest rates are currently between 28 and 32%[7]. However these effective annual rates include fees charged by the bank but do not include other fees involved eg in valuing and charging land which can in practice considerably raise the costs of bank borrowing. On interviewing a small number of bank borrowers who had charged collateral, the costs ranged from a nominal amount charged by Barclays who have internalised the charging process (but are now considering charging customers for the service) to Kshs 20-40,000 for loans from other banks ranging from Kshs 200-400,000, representing in the region of 10% of the loan amount.

?? Employee SACCO rates although usually quoted at 12% declining balance involve effective interest rates of around 30%. This is because loans are usually offered at 3 times the shares (savings) of the members and the member continues to save during the loan. Hence this raises the costs of the loans significantly.

?? Cash crop SACCOs are currently charging 16-18%, and again work on multiples of shares which for the local tea SACCO has been a multiple of two. This therefore approximately doubles the interest rate. Past loans in the coffee sector through the Union Banking Sections were on the basis of the past 3 years coffee payments so that at that time they were a much cheaper source of credit.

?? The cheapest loans potentially available were medium term agricultural loans from AFC which charges 17% declining balance but as indicated above this source has had very few funds to lend in the 1990s.

?? Mortgages eg from HFCK for a minimum period of 5 years also compute to effective annual interest rates of under 20%.

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7 Since the first round of field work during which this survey work was undertaken, base rates have dropped substantially and currently stand at around 18%, bank margins over based are included comparable rates are now 20-25%.

Perhaps the most interesting finding of these calculations is that borrowing from SACCOs does not necessarily carry a much lower interest rate than borrowing from banks and NBFIs once the opportunity cost of ongoing savings requirements are taken into account. However, as pointed out above, these rates for bank lending do not include the related costs of valuing and charging collateral such as land.

4.3) Profitability

We can offer a brief overview of the profitability dynamics of the different financial institutions. Obtaining profitability data at the level of the branches in Karatina of eg banks and other multi-outlet organisations was problematic in terms of collection. Formal sector institutions were not willing to release such data. However on the basis of discussions with managers it is possible at this stage to present qualitatively the broad dynamics of profitability in the sector which are summarised in Table.

Table 4: Summary of profitability dynamics of financial institutions

Type of institution	Profitability of Karatina operations
International banks: Barclays Standard Chartered	?? Karatina can't provide profile of business these banks want to reach their profitability requirements – Standard Chartered closed its branch in 1995, BBK has halved the staff during 2000 and made it a sub-branch under Nyeri.
National Banks: Co-operative KCB National Bank of Kenya	?? Co-operative - branch level profitability is acceptable ?? KCB and NBK – national level bad debt problems in last couple of years resulted in national level losses.
NBFIs: Consolidated Equity Building Society Housing Finance Corporation of Kenya (HFCK)	?? Consolidated makes losses locally – legacy of early 90s 'political bank' failure and closed at the end of 2000. ?? Equity – growing rapidly since 1998 and Karatina is one of its leading branches, it is now posting overall profits having been declared 'technically insolvent' in 1991 by the Central Bank. ?? HFCK (based in Nyeri(profitable at National level
Para-statals: Agriculture Finance Corporation Joint Loans Board Post Office (Savings only) Kenya Industrial Estates ICDC	?? AFC – loss making ?? JLB - Loss making ?? PO – data not currently available ?? KIE- Locally covers costs – nationally unknown ?? ICDC – Profitable locally and nationally
Mainstream MFOs KWFT K-REP Faulu NCCK-SMEP	?? KWFT and FAULU are supported by donor subsidies ?? K-REP has been built up with donor subsidies but is now a registered bank ?? NCCK - unknown
Management service MFOs PFP WEDI SEDI	?? Provision of management services profitable – since these do not directly offer financial services they do not bear costs of eg default which are carried by the ASCRAs themselves
SACCOs: Cash crop SACCOs Nyeri Farmers Coffee Co-operative Society Mathira Tea Growers SACCO Nyeri District Tea Growers SACCO	?? Coffee SACCO in transition – previously profitable as Union Banking Section ?? Tea saccos – variable dividends posted
Transport/Business SACCOs	?? Most less than 5 years old – 1 of 6 has given a return to members– heavily supported by voluntary inputs of management time
Employee SACCOs	?? 4 out of 5 small local SACCOs pay dividends at rates of less than 5%
ASCRAS	?? very high dividends paid in some (esp women's)

ROSCAs	?? no surplus generated
Moneylenders	?? 'old' moneylenders (4) appeared profitable in late 1999, by early 2001 one was out of business and another had substantially reduced his portfolio ?? 'new' moneylenders (3) - at least 1 has definitely lost money (a woman); others uncertain

4.4) The anomaly of the mutual sector

This overview allows to highlight well the anomaly that the mutual sector represents for an analysis of loan price in terms of the cost of funds, costs of administration and default and profit (returns on stockholders equity).

Two forms of financial intermediary - SACCOs and ASCRAs – do not conform to attempts to analyse savings and loans products separately. In these institutions the savers are the borrowers – demand is not independent of supply – you can only borrow from the institution if you have first saved there and the loan to which you are eligible is a function of your level of saving.

Second, the interest rate paid on loans directly affects the dividend paid on shares. Hence in ASCRAs we observe members willing to pay high rates of interest on loans compared to products elsewhere in the market, for example, 10% per month or 240% on net additional liquidity, on short term advances in managed ASCRA programmes. But this is acceptable to them because at the end of the year the dividend on their shares reflects this interest rate and may be in the region of 20-50%. SACCOs are the converse of this, members pay what they recognise as relatively low rates on loans - 12% nominal – (but in the region of 30% once savings requirements are taken into account) but are willing to accept relatively low rates of return on their shares in the form of dividends as a result.

The reason why members join these systems is because they can get access to loans. Once you are in a SACCO, as long as you meet the conditions and funds are available, you are entitled to borrow. Similarly for an ASCRA – once you are a member, your ability to borrow is virtually guaranteed (unless and until you default). This feature is due to the fact that these organisations are based on a model of member ownership of the financial intermediary. So members save in order to be able to borrow and since they own the organisation, they can trade off the cost of loans against the return on their savings.

It can therefore be seen that the profile of transactions costs that a SACCO or ASCRA will incur in making a loan are different to those incurred by a bank. In the case of a SACCO, the borrower is usually a long term member of the SACCO who has saved over a number of years. A range of borrower characteristics are already known – in the case of SACCOs in Kenya, it is primarily the income source which forms the common bond of the SACCO. Further, the loan may be guaranteed by the members shares and by the shares of other guarantors. These factors reduce the screening costs, as well as the potential enforcement costs that the SACCO will incur in lending to a member. Indeed the screening function has in effect already been carried out by the way the organisation has been formed and for ASCRAs which don't have a common bond this is usually on the basis of individual members local knowledge of each other. Hence screening costs at the actual point of making a loan are negligible compared to the process that the bank has to pursue in lending to borrowers that it may not know. So that it does not make sense to apply an analysis of transaction costs independently of the types of institutional form that is being considered.

Moreover the need for an analytical approach that can deal with these institutional forms is not simply an issue of conceptual curiosity. The data in Table 1 indicates that SACCOs and

managed ASCRAs account for some 20% of deposits but represent 52% of savings accounts and 31% of loans by volume. Nor does this take account of the funds and membership of SACCOs at the national level and in ASCRAs in the informal sector not captured by this data. The need therefore to have an analytical framework that can deal effectively with the nature of services offered by these types of financial institutions therefore appears crucial.

5) Conclusions

This paper has proposed that financial intermediation can be seen as a collective action problem to which there are three core types of solutions – firms, the state and co-operative or mutually based organisations. Each type can be analysed as an institution in which there are rules and monitoring and enforcement mechanisms. Institutions for financial intermediation fit into these three categories except for moneylending and reciprocal lending between friends and relatives. The latter two are not collective action institutions as they involve only bi-lateral contracts.

Developing the analysis of financial institutions in this way demonstrates the ways in which the rules, monitoring and enforcement mechanisms which enable institutions to function are related to wider sets of institutions – legal, political, social, cultural and economic. Moreover that array of institutions that a society is able to generate is rooted in these wider institutions and the resources that these institutions represent.

We have shown that the nature of these financial institutions generates financial services which encompass a range of key features that include collateral requirements and the ability to exercise voice. The differences in transactions cost which these institutions incur arise out of the differences in their institutional form and this in turn explains the fragmentation which

the NIE concludes in conducting an analysis of transactions costs. This approach suggests therefore that the sources of fragmentation can be theorised as arising out of underlying social structures. It is therefore through an analysis of the influence of social structures on the rules, monitoring and enforcement mechanisms of financial institutions and the financial services to which they give rise we can develop a more fruitful analysis of the ways in which financial services operate and the ability of particular socio-economic groups to use them. Further papers will undertake this analysis for the financial market in Karatina.

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