FINANCE AND DEVELOPMENT RESEARCH PROGRAMME

WORKING PAPER SERIES

PAPER NO. 4

MICRO-MACRO LINKAGES IN FINANCIAL MARKETS:

The impact of financial liberalisation on access to rural credit in four African countries

March 1999

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Published by:
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Abstract

Almost every programme of economic reform contains a financial liberalisation component; but little work has been done to assess the effects of financial liberalisation on access to credit in individual markets. We present a model of this linkage, which predicts that conventional financial de-repression will have no significant effect on the price and availability of credit in the informal sector, but that financial innovation in the informal sector will affect such availability considerably. We test this proposition specifically against data for the period of financial reform in four African countries: Uganda, Kenya, Malawi and Lesotho. Such reforms had significant effects on interest rates, but except in Uganda these effects did not feed through into an increase in savings rates or in access to rural credit. Such access was, however, favourably influenced by institutional innovation on the supply side of the market for small-business and small-farm credit. Likewise, in two of the case-study countries - Malawi and Uganda - financial de-repression had insignificant effects on poverty and privatisation of the bottom end of the credit market on its own had disastrous effects, but expansion of the supply of smallholder credit had a highly positive poverty-reduction effect.

1. **Introduction**

Especially since the end of the 1980s, almost every programme of national economic reform, in industrialised as well as developing and transitional economies, has contained a financial liberalisation component. The logic of financial liberalisation, in the simple sense of decontrol of interest rates, is to augment the supply of savings and increase the efficiency of investment by enabling interest rates to perform their screening function more effectively. This orthodox view of financial liberalisation is illustrated in Figure 1: if the interest rate is allowed to move from its controlled to its equilibrium level, the supply of savings will increase from s_1 to s_2, the investment-savings gap (and the dependence on overseas sources of finance which it implies) will disappear, and so also will the dubious investment projects which were profitable at the old interest rate r_1 but not at the new rate r_2. Hence the quality of the entire investment portfolio and in time the growth rate of the economy will increase. An increased growth rate, in due course, will bring down the supply-of-savings curve and the equilibrium interest rate.

Figure 1. Financial de-repression: the conventional view

The experience of financial liberalisation, as conveyed by a range of reviews including those of this project, has of course not always conformed to this prior expectation. Those econometric tests which demonstrate a significant positive influence of financial de-repression on growth (for example Arestis and Demetriades 1997) are largely confined to industrialised countries. By contrast, in a number of developing and transitional countries undergoing financial reform, savings and investment have not increased (Gibson and Tsakolotos 1992) the availability of bank credit has not expanded (Nissanke 1990 and Kariuki 1995 for Africa; Cho and Khatkhate 1989 for Asia; Mosley 1996 for eastern Europe) and the vulnerability of banking systems to collapse appears to have been augmented (Diaz-Alejandro 1985; Lopez-Cortes 1998). Although not all of these studies rigorously trace through the link between cause and effect, there is room for anxiety about how the linkages between financial-sector reform and economic welfare work out for particular interest-groups.

This is not surprising, since financial markets in developing countries vary in a number of ways from the simple model of Figure 1. The most important of these is that individuals on both sides of the market suffer from *imperfect information* about individuals on the opposite side (Akerlof 1970, Rothschild and Stiglitz 1976, Stiglitz and Weiss 1981): lenders do not know if borrowers will pay loans back, savers do not know if their money is secure in particular institutions, and neither party has any means of finding out. These problems assume major practical importance in developing countries where many potential borrowers cannot offer collateral and bank failures are common, and where, as a consequence, market failure and market fragmentation is widespread in the financial sector. In such an environment conventional financial liberalisation, by definition, can only make a limited contribution; for financial liberalisation can only 'unleash' markets for financial services if such markets already exist. As a consequence, two gaps exist in our understanding. At the analytical level, we need to know the effect of liberalisation on *access to credit in individual markets,* since information on what has happened to the supply of savings or credit in the *modern sector* (the issue tackled by the authors listed above) will not tell us whether financial reform has increased access to credit

by farmers, or the urban informal sector, or the poor generally. At the practical level, we can see that reform, if it is to tackle the problem of imperfect information, needs to include institutional developments which create new financial markets and regulate the markets which exist, rather than simply removing directed credit and interest-rate controls; but what should this additional level of reform consist of? Existing attempts at institutional development sponsored by aid donors, as we shall see, have consisted for the most part of attempts to develop markets in government debt and the shares of commercial companies ; however, by the argument already developed, these on their own are unlikely to impact in any serious way on non-formal credit markets, and it is necessary to specify the type of policy and institutional developments which will improve access to credit by the poor in particular.

This paper seeks to fill these gaps in relation to four poor African countries. We construct a simple model which attempts to understand how financial-sector reforms have impacted on the rural economy of African countries, and how that impact can be increased. A particular concern is whether and how the access to credit of poor rural people (rather than simply access to credit as a whole) has been affected by financial reforms. The general line of argument will be that financial-sector reform, in the conventional sense of liberalisation, has bypassed more than half the economy of most African countries, but that reform of a different kind, emanating mostly from the NGO sector, now promises to reach the poor and dispossessed in a much more effective way, *providing that orthodox financial-sector reform does not neutralise it*. This kind of reform essentially consists of institutional innovation on the supply side, but state intervention both by way of direct supply of credit and by way of intermediation continues to be needed at the bottom end of the market.

2. **Linkage between macro-reform and local financial markets: a simple model**

As discussed above, the aim of conventional financial-sector reform (i.e. liberalisation) is to augment the supply of savings and to improve the quality of investment by enabling the rate of interest to perform its screening function, as depicted in Figure 1 above. Debate about whether this has happened has so far been focussed on the supply and price of credit in the *modern sector:* plantations, mines, large multi-national businesses. We wish to extend the discussion to the non-formal financial sector to examine the interlinkage between the two components of the financial sector.

Accordingly, in Figure 2 we set the two parts of the financial sector side by side, in the two left-hand segments of the diagram. Segment (a) is simply a photocopy of Figure 1: a depiction of the process of financial de-repression in the modern sector. Segment (b), is the non-formal financial market, supplied principally by traditional moneylenders, lending short-term to a selected group of known borrowers, mainly for consumption, at a high multiple of the modern-sector interest rate[1]. As discussed

[1] The high premium of informal-sector over formal-sector interest rates is one of the key stylised facts of LDC credit markets: in a sample of 44 countries examined by the World Bank (1984) the average formal-sector interest rate was 11 per cent, and the average informal-sector interest rate was 95 per cent. In Chapter 4 of Hulme and Mosley (1996) we report on research showing that in a range of countries (including Kenya and Malawi in Africa) moneylenders operating without microfinance competition lent short-term for consumption to known individuals only. There is now an increasing

earlier, uncertainty about future rates of return and about the repayment intentions of borrowers is a crucial determinant of the terms of access to this market. The supply curve, let us assume, is S_1: this is a cost curve, reflecting the costs of borrowing (or taking deposits), administration and potential default due to the moneylender's inability to predict the borrower's repayment intentions. If borrowers are risk-neutral,let us assume,the demand curve is D_2 : as in part (a) of the diagram,this is a marginal efficiency of capital function, but its position is only subjectively and uncertainly known by borrowers, and D_2 represents the mean of the probability distribution of outcomes, in which event the interest rate will be at r_3, some way above the modern-sector interest rate. In those extreme cases where risk-aversion forces borrowers to take a pessimistic view of possible outcomes, the demand curve for finance sinks from the expected value of the marginal efficiency of capital (D_2) to its minimum possible value (D_1) and, if the supply curve remains at S_1, the capital market fails in that locality.

Figure 2 Interlinkage between financial sector reform, credit access in informal sector

We can now introduce new actors into the story. *The government* at least regulates the market for modern-sector credit, and if financial-sector reform takes the conventional form of de-repression, as assumed up to this point, then interest rate liberalisation will raise the price, even if it also increases the quantity, of such credit as moneylenders supply to the informal sector. This is the first link between the formal and the informal parts of the financial sector: however, there are potentially others:

- If governments, being unable to control the activities of the traditional moneylender[2], wish to make a scapegoat of him, they may drive the traditional moneylender into the black market (as in Indonesia), in which event the supply curve of informal credit (S_1 in part (b) of the diagram) will move upwards.
- NGOs or government agencies may seek to enter the market for informal-sector credit in competition with the traditional moneylender. Increasingly often, in doing so, they have been able to introduce a new lending technology which both reduces the costs of supplying credit to small borrowers at any specified level of output (say from S_1 to S_2 in Figure 2b) and broadens the range of financial services available to the borrower, from short-term consumption loans to known individuals to loans of various maturities, savings and insurance services for all comers[3]. The lending technologies of the so-called 'microfinance revolution' are now the subject of a large literature (Yaron 1990, Christen, Rhyne and Vogel 1994, Otero and Rhyne 1995, Hulme and Mosley 1996); opinions vary on what is essential and what is expendable within what is now a huge range of experiments, but most would agree that freedom to charge market interest rates, intensive supervision of loan repayment at or near the borrower's premises,availability of savings and/or insurance facilities and 'incentives to repay' are key elements in the necessary package. If such innovations are successful in bringing down the supply curve of credit in the informal sector,

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literature on the characteristics and behaviour of traditional moneylenders in Africa, for example Bolnick(1990?), Chipeta and Mkandawire(1992) and Thillairajah(1994).

[2] 'The whole object of (creating a structure of rural co-operatives) is to provide a positive institutional alternative to the moneylender himself, something which will compete with him remove from the forefront and *put him in his place* (Reserve Bank of India 1954; emphasis added)

[3] See Hulme and Mosley (1996, Chapter 1) and reference contained therein.

then various beneficial things are likely to happen: the budget constraint of small farmers and informal-sector small businesses is likely to be moved outwards (as in the top right-hand part of Figure 2), productivity-raising technologies such as hybrid seeds and power tools can be adopted, labour absorption is likely to increase (from L_1 to L_2 in the same diagram), and.through both channels poverty may be reduced, as in the bottom right-hand part of the same diagram. The rate at which poverty is reduced will depend on the rate of labour absorption (ΔL), the ratio of poor to nonpoor among the beneficiaries (P / NP) and the change in average incomes, if any, among the beneficiaries.

- Potentially, the profit opportunities offered by the new microfinance technologies (e.g. borrowing at 10% or less and lending at 40% at very low levels of default) ought also to be attractive to the formal financial sector (commercial banks,venture capital houses, etc); should this happen, it would further reduce the formal / nonformal interest rate differential. However, there is little sign yet of this kind of linkage yet: except in parts of Latin America, most microfinance continues do be done by traditional moneylenders, NGOs and government agencies only. The reluctance of commercial financial houses to enter the field appears strange, given the profits available (and being made by some micro-finance institutions, such as the BRI unit desas); it appears to be due to high levels of subjective risk(Baydas, Graham and Valenzuela 1997; Montagnon 1998) augmented by sheer ignorance and by a shortage of individuals able to act as go-betweens and present the financial results of microfinance institutions in a form digestible by commercial banks. Once the link does materialise, the current disconnection between formal and informal sectors will melt away. For as long as restrictions persist, however, on the channels by which the savings of the formal sector can be transferred to borrowers in informal markets, it is by no means to be expected that any increases in saving or in formal-sector interest rates will influence the conditions of borrowing in informal financial markets. This is a hypothesis that we shall seek to test in the next section.
- Changes in regulatory procedure (for example, changes in the rules governing the minimum capital requirement for banks to be established, or for NGOs to be allowed to take savings deposits) will affect the supply curve for informal sector credit. On the simplest analysis, relaxations in regulatory procedure will lower the barriers to entry and move the supply curve downwards; if, however, this results in bankruptcies among microfinance institutions, the curve will jump back up again, restricting access to credit markets.

The following predictions emerge from the above analysis:

- Financial de-repression in the formal sector, of itself, will have no significant effect on the price and availability of credit in the informal sector.
- Other forms of financial sector reform (e.g. changes in minimum capital requirements) may have a substantial influence on the price and availability of credit in the informal sector.
- Financial innovation on the supply side of the informal sector (e.g. microfinance or institutional linkages with roscas) will have, possibly with a lag, a substantial effect on the price and availability of credit in the informal sector.
- Changes in the price and availability of credit in the informal sector,due either to financial innovation or other causes, will have substantial effects on informal sector investment, technology and poverty levels.

3. **Tests of the model: evidence from four African countries**

(i) Overall patterns

Table 1 gives an indication of the character and sequence of financial-sector reform over the period 1985-97 in four poor African countries: Uganda, Kenya,Malawi and Lesotho.The initial conditions of these countries varied: Malawi in the early 1980s was almost control-free (to the point where it appeared as the most virtuous country in a league table of distortions in 44 developing countries listed in the World Bank's 1983 *World Development Report*); Kenya was moderately control-free, having removed controls on interest rates in 1983; but Uganda and Lesotho, at this stage, retained substantial restrictions both on domestic interest rates and overseas capital movements, with these restrictions in the case of Lesotho being interlocked with those imposed by the South African government.

The thrust of government-induced financial reform thereafter was similar, although the pace of implementation varied. The pressure from the World Bank was identical in all cases: deregulate interest rates and keep them positive in real terms, eliminate credit subsidies, broaden the range of financial liabilities offered by the government and private companies, and increase the share of the private sector in financial markets: essentially the de-repression and diversification shown in Figure 2a. The response of the government to these proposals is shown in Table 1:

Table 1. Financial-sector reforms in four African countries, 1985-97

	Reforms carried out:	
	(i) orthodox adjustment	**(ii) design innovations on the supply side**
Kenya	Interest rate controls removed, 1983 Kenya Commercial Bank partly sold to public, 1988 Capital Markets Authority established, 1987	Kenya Rural Enterprise Programme established by USAID, 1989 Kenya Rural Enterprise Programme's banking activities converted into a bank,1998
Uganda	Interest rate controls removed, 1993 Selective credit subsidies removed, 1994	Commercial bank (Centenary Bank) moves into microcredit provision, 1992
Malawi	Interest rate controls removed,1985 Existing state microfinance institutions (Smallholder Agricultural Credit Administration and Mudzi Fund) dissolved and re-established under new private company (Malawi Rural Finance Company), 1994	Establishment of Mudzi Fund lending to unsecured rural businesses, 1990

Lesotho	External capital controls removed concurrently with equivalent changes in South Africa,1996	Lesotho Bank (state controlled) begins lending to selected microfinance NGOs, 1995.

As will be observed from the table, ' conventional' financial reforms in the four countries examined came in two waves. Malawi and Kenya, which even at the outset of structural adjustment had macro-policy regimes broadly acceptable to the IMF, removed all remaining controls on interest rates in 1983 and 1995 respectively. (Prudential regulation did not keep pace with the speed at which banking institutions were created, and Kenya in 1986 experienced a serious banking crisis requiring the closure of two banks and the restructuring of half a dozen others). By contrast, Uganda, which liberalised its foreign exchange rate and price controls in the late 1980s, left it until 1993 before removing controls on domestic interest rates, and Lesotho, whose foreign exchange rate and money supply are tied to that of the South African rand, never had occasion or ability to impose formal interest controls. It did however offer a range of subsidised lines of credit to small industries through the Basotho Enterprises Development Corporation (BEDCO). Financial liberalisation, in such an environment, principally took the form of the reduction (not the complete withdrawal) of such subsidies over the period 1994-96.

Side by side with these measures of conventional liberalisation came a range of measures to expand institutional capacity. These were of two kinds: policies to diversify the range of assets in circulation in formal financial markets (such as the creation of Capital Markets Authorities in both Kenya and Malawi during the late 1980s) and a range of institutional innovations in microfinance, which impinged largely on informal financial markets. Except in Malawi (where the Smallholder Agricultural Credit Administration operated, until 1993, purely as a wing of the Ministry of Agriculture) these latter initiatives were NGO- rather than government-inspired: examples include the Kenya Rural Enterprise Programme family of institutions, the revitalisation of the co-operative movement in Uganda and the Lesotho Bank NGO initiative of 1995. These will be considered in more detail later in the paper.

In seeing to define the effects of the various financial-market initiatives we use two sets of indicators. In relation to the formal sector, we examine the trend of real interest rates and savings, both of which liberalisation attempts to influence. In relation to the informal sector, we use both the 'volume of credit provided by agricultural finance institutions', which provides comprehensive figures over a considerable period but covers almost entirely loans to better-off, collateralised cash-crop farmers, and an index of access to credit derived from a rural questionnaire survey conducted in 1997 in all four countries.

Indicators for the formal sector are set out in Table 2. There has been some increase in real interest rates since the onset of financial liberalisation in all of the four countries sampled; however, only in Uganda has this been associated with any improvement in the savings rate, which indeed has fallen drastically in both Kenya and Malawi. This is consistent with the findings of Ostry et al. (1996) and a range of authors reported in Gibson and Tsakalatos (1994): aggregate savings in poor countries are typically very weakly responsive to domestic formal-sector interest rates on account of opportunities for capital flight, the insecurity of deposits in

formal financial institutions and above all a lack of deposit-taking institutions, willing to handle small sums, in rural areas. These additional fragments of evidence in support of the hypothesis of interest-inelasticity of savings will surprise few readers.

Table 2. Financial liberalisation: effects on formal sector

	Period of intensive financial liberalisation	**Real Interest rate:**		**Savings rate:**	
		Three years prior to reform	**Three years since reform**	**Average for three years prior to reform**	**Average for three years since reform**
Kenya	1982-4	-5.0	2.1	18.0	13.0
Malawi	1985-7	-13.1	-5.0	11.0	4.0
Uganda	1992-4	-35.0	12.0	2.3	8.5
Lesotho	1994-6	1.5	3.0	-10.5	-9.0

Source: World Bank *World Tables;* Lesotho *Policy Feamework Paper 1997-99;* Uganda *Background to the Budget 1996-97;* Kenya *Economic Surveys* various.

What is of more interest is the behaviour of the financial markets in the informal and rural sectors, as summarised in Table 3. As shown there, the volume of agricultural credit, as reported by the central statistical office, showed no significant change as between the pre-financial reform period and the post-financial reform period in any of our case-study countries, except in Malawi where the volume of institutional farm credit *sank* sharply during the period 1993-6 . (This episode will be examined in more detail shortly, see see Table 4 below and surrounding text.) However, we may also note that during the periods of susbstantial expansion of activity by non-governmental organisations (1990 to date in Kenya, 1990-1 in Malawi, 1992-6 in Lesotho) the volume of institutional credit to the non-formal sector expanded sharply. These expansions may be interpreted as shifts in the supply curve of informal sector credit (S_1 to S_2 in the notation of Figure 2), rather than liberalisations of its price.

Table 3. Financial liberalisation and institutional reform: effects on rural financial markets

	1.Period of intensive financial liberalisation	*Overall agricultural sector: estimated credit disbursements* ($ million, 1990 prices):		*Small-farm agriculture only, post-reform (1992-7)*	
		2. average for 3 years prior to reform	3. average for three years since reform	4. credit disbursements (% change in real terms)	5. access measure (%change in real terms)
Kenya	1982-4	190	182	+35	+98
Malawi	1985-7 and 1994-6	121	109	-67	-29
Uganda	1992-4	116	123	+24	+120
Lesotho	1994-6	34	32	+3	+6

Sources: for overall rural credit disbursements(columns 2 and 3):
Kenya, *Statistical Abstracts* various ('total lending to farm sector by Agricultural Finance Corporation, commercial banks and co-operative credit societies')); Malawi, *Statistical Yearbooks,* various ('Commercial banks advances to agricultural sector'); Uganda, *Financial Statement and Background to the Budget*;Central Bank of Lesotho.

For small-farm credit disbursements:
Column 4: Kenya: 'Loans to small farmers' from *Statistical Abstracts,* various (e.g. 1991, Table 137)

Malawi: pre 1993 from Smallholder Agricultural Credit Administration; post 1994 from Malawi Rural Finance Company (see further table 4 below)

Column 5: the access measure used is percentage of households sampled having access to *any* financial service (savings, credit or insurance) . The data are derived in all cases from survey questionnaires in one high and one low-potential area, namely the regions of Dowa and Mwanza (Malawi) Bungoma and Tharaka (Kenya), Iganga and Soroti (Uganda) Leribe and Thaba-Tseka (Lesotho). The survey was part of an investigation of African agricultural development financed by the Gatsby Charitable Foundation (U.K.) conducted between January and August 1997, to be published as *A Painful Ascent* (Routledge, 1999).

It is useful to cross-check these findings with on-the ground surveys of access to financial services, not only because more dollars disbursed does not necessarily mean more people being able to access credit, but also because more people being able to obtain credit is potentially quite consistent with a decline in credit access among the poorest groups. We have data on access to financial services amongst rural communities in each of the countries examined, but only for a sample of two or three areas in each country, as specified in the notes to Table 3, and only for the years 1992-97. These data, summarised in the final column of Table 3 are broken down by recipient household in Table 4. We discover:

1. that that in the two countries where NGO credit provision has increased sharply over the 1990s - Kenya and Uganda - access, in the shape of the percentage of households sampled who have access to financial services - has risen, from 13 to 25 per cent in Kenya and from 9 to 21 per cent in Uganda. This increase is both supply- and demand-led: the increase in density of NGOs is itself due partly to the spread of the green revolution in maize, horticulture and small grains in Kenya and Uganda and to the growth of rural non-farm industries stimulated by the green revolution. This holds good both for rural households as a whole and for households below the poverty line. Note that these data relate to *financial services as a whole:* access to credit alone is much smaller than this.
2. that in the two countries where there has been no sharp increase in NGO credit provision - Lesotho and Malawi - the access percentage has in the former case remained more or less stable and in the latter case fallen sharply. The reasons for this are further considered on page 19.
3. that access to credit by the *poorest* income groups - the 10% at the bottom of the income distribution - did not increase over the period 1992 - 97 , in spite of the improvement in access by individuals below the poverty line.

Table 4. Four sample countries: access to rural credit 1992-97

	% of sampled households with access to credit: 1992			% of sampled households with access to credit:1997			Memorandum item: disbursements of unsecured credit by major NGOs (% change 1992-97)
	Overall	House-holds below poverty line only	Poorest 10% by income	Overall	House-holds below poverty line only	Poorest 10% by income	
Kenya	13.1	8.0	3.0	24.9	11.1	3.1	98
Uganda	9.2	7.0	3.0	21.0	9.2	3.6	120
Lesotho	10.1	6.1	2.0	12.6	8.1	1.9	6
Malawi	12.0	8.0	1.9	8.1	5.6	0.9	-29

Source: survey data, as for table 3, column 5.

Before proceeding let us gather together the threads of the discussion so far. Financial liberalisation has had the desired effect (from the oint of view of the Washington institutions) on real interest rates, but in most of the countries we examine has had a neutral effect on savings (country-wide) and on lending to informal and rural financial markets. Financial innovation in rural locations, however, does have a strong and significant correlation with both credit volume and availability. It is possible to argue that this financial innovation on the supply side does have some synergy with financial liberalisation of the conventional sort, in the sense that NGOs and other microfinance institutions need to be free to charge whatever interest rates they wish in order to cover the (at present very considerable) costs of institution-building, supervision, experimentation and insurance. Intuitively, however, we doubt whether this has ever been an important issue on the ground. The Asian (especially South Asian) syndrome of stringently enforced controls on interest rates in order to protect poor rural people from exploitation by rapacious moneylenders[4] has never been part of the African financial landscape .Freedom to charge whatever the supplier desires for financial services has always existed, *de facto* in rural if not in urban environments; it is the taking up of this freedom by suitably equipped suppliers which is new, and subject to the caveat mentioned above, this owes little to liberalisation at the macro-level.

We now wish to develop the argument in two ways. First, a case now exists - Malawi - where the state provision of microfinance for rural areas has itself recently been liberalised, and we wish to examine the impact of this new development. Secondly, the distributional implications of financial reform need to be examined in a more rigorous way.

The story of financial reform in Malawi, following the initial liberalisation of the 1970s and 1980s, is essentially the following. The economy (one of the poorest in Africa, with a 1995 per capita income of $140) is heavily dependent on small-farm agriculture, which in turn is heavily dependent on maize. The development of Malawian agriculture, and poverty reduction from its current level of around 80 per cent, have been constrained by low crop yields (approximately one ton / hectare through the 1980s and early 90s, by contrast with 2-4 tons in small-farm areas of Kenya and Zimbabwe), in spite of near- Asian population densities and the availability of suitable hybrid seed varieties. Most farmers are too poor to buy hybrid seed or fertiliser for cash, hence their ability to invest in high-productivity inputs depends on their access to credit.

As in many countries the structure of the financial market is dualistic, with companies, estates and the few upper-income personal customers borrowing from commercial and development banks and the rest from traditional moneylenders. But there have been two recent experiments in microfinance which depart from this norm. One of them, the Farmers' Clubs (subsequently Smallholder Agricultural Credit Administration or SACA) dates back to the days of the Lilongwe Land Development Programme in the early 1970s: this was a government-sponsored group credit scheme for farmers lending at a government-controlled interest rate, with loan instalments collected out of the proceeds of the harvest. The other, the Malawi Mudzi Fund, set up in 1989, was also a group scheme, sponsored by IFAD; but this was aimed more at small traders and manufacturers than farmers, and modelled on the principles of the Grameen Bank of Bangladesh, with weekly

[4] See quotation indexed by footnote 2.

repayments to a member of the bank's staff at a 'centre', containing six groups, near the borrower's workplace. Although represented as quasi-autonomous, it too had strong government representation in its management, in particular a steering committee chaired by the permanent secretary of the ministry of finance; hence it lacked freedom to determine its own interest-rate and personnel policies.
Both schemes got into difficulties in the early 1990s. SACA (as shown in the table), after two decades of very good loan recovery, suddenly lost all control over overdues in 1992, under the stress of a very bad drought and promises by the newly-democratised Malawi Congress Party to offer a moratorium on overdues if elected. For its part the Mudzi Fund failed to achieve either the outreach or the financial discipline of its Grameen parent and remained as a consequence very subsidy-dependent: a calculation by Buckley (1993) suggested that it would have had to raise its interest rate by a factor of 18 to break even.

The approach of the World Bank and donors to the reform of the agrarian part of the financial sector was the same as that previous adopted for the liberalisation of financial markets as a whole. Financial repression was to be done away with, and private-sector capital to be introduced into all parts of the sector; the assets of the Mudzi Fund and SACA were handed over in 1994 to a new private entity, the Malawi Rural Finance Company(MRFC), recapitalised by the Bank, which now undertook to take deposits as well as make loans to the rural poor. The MRFC decided, in pursuit of financial security, to go upmarket, and in respect of agricultural loans to lend only to those farmers who farmed a cash crop (usually tobacco) as well as other food crops; this automatically tended to disqualify the poorest farmers, and we calculate that the proportion of MRFC borrowers below the poverty line has fallen from 45% in 1992 (under SACA and the Mudzi Fund) to 11% in 1997. Loan volumes have shrunk, as illustrated in Table 4, and financial stability has not returned: the MRFC had overdues of more than 30% in 1996. One aggravating factor is that when, under the stress of heavy IMF budgetary conditionality following a major macro-financial crisis in 1994, the fertiliser subsidy was finally removed, this, as shown in the bottom rows of the table, made the application of modern inputs to maize and other crops less attractive, and depressed the all-important yield of maize, and thereby tended to reduce the incomes of poorer farmers.

Table 5. Malawi: Financial liberalisation and maize production 1980-96

	Maize smallholder sector:			Financial institutions lending to the poor:		
	Output Yield (Kg/ha)	Fertiliser use (tons)	Maize/ fertiliser price ratio	Credit volume (1996 m. kwacha)	Overdue ration: SACA	Mudzi Fund
1980s average	1.13		0.89	SACA: 86	7	n/a
1990	1.00	99400	0.38	SACA +Mudzi Fund: 435	13	48
1991	1.14	106884	0.31	510	15	35
1992 *	*0.49	144235	0.31	546	76	
1993	1.53	150087	0.30	---------	MRFC ----------	
1994		95219	0.32	36	5	
1995		139939	0.34	150	7	
1996		90874	0.22**	230	34	74

*drought year
** subsidy removed
Data from: Buckley 1993; World Bank 1997; World Bank Malawi Resident Mission.

It is hard to draw any other conclusion than that *this component* of financial liberalisation has depressed agricultural production and jeopardised the livelihoods of many poor people throughout Malawi. It will be protested that it is not liberalisation as such, so much as the decision by a privatised bank that it could only make profits by abandoning the microfinance approach, which has caused the hardship; but it is a fact that a retention of poverty targeting could have been written into the terms of trefernce of the newly privatised MRFC, and was not. The argument is not against privatisation as such; it is agianst the use of conventional collateral in microfinance schemes, and of course against the financial indiscipline which privatisation was meant to remove. Nor does the argument suggest that micro-finance for agriculture is bound to fail, by contrast with trade credit of the Grameen Bank type; there are now several examples of successful agrcultural microfinance in Africa, notable PCEA Chogoria in Kenya and the CCEI/Gatsby Trust scheme in Cameroon, the lessons from which are discussed in Chapter 4 of Mosley (1998)

What is required, however, is a much more serious review of the poverty consequences of liberalisation than that so far attempted. For we have so far considered only two channels through which financial reform impacts on poverty, namely

- it increases the cost of credit to borrowers,
- inasmuch as it is used to finance projects with a positive rate of return, it raises the incomes of borrowers.

However, there are other important channels of influence, in particular

- the projects financed by any increase in the volume of credit may have the effect of reducing the price of goods consumed by the poor (e.g.maize, in the Malawian example above), which will have a poverty-reducing effect.
- the projects financed by any increase in the volume of credit may have the effect of reducing the price of goods consumed by the poor (e.g. maize, in the Malawian example above), which will have a poverty-reducing effect.
- the provision of credit to sectors such as urban shanty-towns or remote rural areas where its supply was previously monopolistic and restricted will bring down the price and augment the volume of moneylender credit.

Figure 3 Financial reform, the labour market and poverty

It is of course difficult to quantify these elements of poverty impact in an environment where data quality generally remains poor. Consequently we shall avoid the methods used elsewhere to estimate the poverty effect of adjustment, such as computable general equilibrium models (Bourguignon and Morrissson 1989, 1992). Rather, we shall use a variant of the Sahn (1994) approach which splits the income of different categories of poor people into its component parts and then estimates the impact of the shock which it is desired to simulate on each component part: thus all we need to know is (i) the separate effect of financial liberalisation on each element of the income of the poor and (ii) the share of each of these elements in the income of the poor. The estimated magnitude of each of these effects for Malawi and Uganda, using 1992 data, is set out in Figures 4(a) and 4(b) separately for financial liberalisation of the conventional de-repression type (figure 1 above) and for financial reform through the establishment of financial institutions catering to the poor. A summary picture of this simulation exercise is presented in table 6. As there portrayed, financial de-repression appears as distributionally neutral (insignificantly progressive in Uganda and insignificantly regressive in Malawi) but strongly progressive in the case of institutional development, with most of the effect being mediated through the labour market rather than through direct effects on borrowers. This is a slightly less rosy picture than the verdict on the distributional effects of adjustment in general delivered by Sahn (1994) and Demery and Squire (1996). However, this verdict depends very strongly on liberalisation having its intended impact on intermediate variables. If, as we have seen happened in Malawi, liberalisation is so conducted as to *restrict* the volume of credit in circulation, there is no doubt that this will have a negative effect on the incomes of the poor, as may be directly inferred from Table 6. It is also sensitive to the choice of poverty indicator: the analysis of McKay(1998) for Uganda suggests that the poverty gap measure responds more to increases in credit volume than the headcount index, as much credit expansion makes poor individuals slightly less poor rather than taking them over the poverty line.

Table 6. Malawi and Uganda: estimated effects on urban and rural poor of different types of financial reform

	Financial de-repression:		Financial de-repression plus expansion of the supply side:	
	Urban poor	Rural poor	Urban poor	Rural poor
MALAWI -	+0.5%	+0.3%	+2.7%	+3.1%
UGANDA -	+0.6%	+0.1%	+4.2%	+4.6%

Source: budget data for urban and rural poor from Uganda National Household Budget Survey 1992 and Malawi National Household Budget Survey 1992.
Notes on method: financial de-repression is modelled as an 8% increase in real interest rates (approximately accurate for Malawi, see table 4); expansion of the supply side is modelled as a doubling in the availability of credit to individual households (approximately accurate for Uganda, see Table 4). This standardised package is then applied to the urban and rural budgets summarised in Figure 4, which also specifies the assumed channels of impact.

5. Conclusions and recommendations

The argument of this paper can be summarised through the following propositions:
1. The assumption of a unitary economy, which is required to sustain the stock arguments for financial de-repression, is particularly dangerous in Africa. The removal of controls on interest rates and the increase of financial depth do not, on the available evidence, increase the volume of savings or access to credit in rural areas, except by those who already have collateral. This can readily be explained in terms of the reluctance of commercial banks to lend to those who lack this attribute, which distorts the market.
2. Such 'endogenous distortions' can on the available evidence be relieved if not cured by investment in institutions which use peer-pressure as a substitute for collateral. As yet such investment has only scratched the surface of an extremely undeveloped financial landscape (The Kenya Rural Enterprise Programme (1998) estimate the ratio of microfinance users to the total population at 0.14%, higher than India's but still an eloquent testimony to how much remains to be done.) Where implemented with a viable technology (of which not one, but several exist) this investment, where carried out, has improved market access. In the very important special case of agriculture it has actually achieved better loan discipline than comparable institutions in Asia (Mosley 1998: Chapter 4).
3. Both conventional de-repression and institutional development on the supply side relieve poverty by increasing the attractiveness of lending to the poor, in the former case mildly, in the latter case very strongly. The same cannot be said for liberalisation via the privatisation of state microfinance, which appears, on the available evidence, to be a recipe for disaster, in the event that proper targeting and financial discipline are not retained.

The policy implications for LDC governments and aid donors emerging from the above appear quite obvious, namely allowing financial institutions to choose their own rate for financial services (in the rare cases in Africa where they cannot already do this) and providing appropriate technical support for institutions which lend to the uncollateralised. However, these bland recommendations provide thin camouflage for a snakepit of problems. Many microfinance providers in Africa, as

elsewhere, have not been able to expand beyond ‘subsistence dimensions’ (say the first thousand borrowers), nor reduce poverty, nor even achieve financial sustainability; for all that hybridisation of existing models with indigenous social and infrastructural conditions has provided promising results in many African environments, it is not an exact science, any more than its counterpart in plant sciences. What is perhaps most interesting is the reluctance of conventional financial institutions to obey the first law of portfolio mamnagement and opt for an investment which promises both higher returns and lower tisks than conventional modern-sector lending. This reluctance is both a consequence and a cause of dualism in the financial sectors of developing countries. So long as this reluctance persists, so long will the potential of liberalisation as an instrument of economic management - and of poverty reduction - remain unfulfilled.

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