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Financial Intermediation And The Micro-Finance Sector

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INTRODUCTION

This paper will evaluate the micro-finance sector in South Africa, its scope and development, and its role in the financial sector and the economy more generally. It is informed by the premise that households and institutions save and invest independently, and that the financial system's role is to intermediate between them and to cycle available funds to where they are needed. Consequently the primary objective of this paper is to understand the key factors that affect the micro-finance (MF) sector.

The MF industry was formally (legally) established in 1992 when the state issued an Exemption to the Usury Act that removed interest rate ceilings on small loans under R6,000.00 with a repayment period of less than thirty-six months. Since then there has been phenomenal growth of a formally non-existent industry, providing a good example of how micro-financiers were able to develop given a favourable incentive system. The rapid growth of the industry provided the impetus for a second Exemption to the Usury Act in 1999, where revisions to the amount of small loans were increased from R6,000.00 to R10,000.00, the Micro Finance Regulatory Council (MFRC) was established to manage the sector, and new regulations to govern the way that micro-loans could be administered and repayments collected were added.

However, the growth of the industry has raised as many questions of the financial sector's operation as it has answered those concerning a conducive regulatory climate. Firstly, why has there been such rapid growth in the industry given that SA has a fairly sophisticated financial sector in the first place? Partly related to this is the question of who are the end-users of the loans supplied by the MF industry. Put differently, we need to understand the determinants of the demand for debt, and the segment of society who demands the services supplied by the MF industry. We then need to analyse the parameters of the regulatory framework and identify how lenders are affected by it. Lastly we will provide insights into the structure and performance of the sector in an attempt to augment the discussion.

The rest of the paper proceeds as follows. Firstly, the depth, structure and efficiency of South Africa's financial sector are discussed in comparative perspective in order to contextualise the discussion. Secondly, the structure and size of the industry are estimated. We then proceed to investigate the demand for debt using the Income and Expenditure Survey (Statistics South Africa, 1995) and an adjusted dataset compiled by Wefa Southern Africa for 1999. Lastly, we turn our attention to the regulatory framework of the sector and the degree to which it complies with international best practise.

SOUTH AFRICA'S FINANCIAL SECTOR IN COMPARATIVE PERSPECTIVE

This section evaluates certain indicators of the depth, structure and efficiency of South Africa's financial sector relative to eleven other upper-middle income countries (including Malaysia, South Korea, Chile, Czech Republic, Brazil, Turkey, Poland, Argentina, Mexico, Gabon and Botswana) as well as three developed countries (USA,

Germany, Japan). Our objective here is to assess exactly how efficient South Africa's financial sector is when compared to global benchmarks.

Generally it is known that SA has a well regulated and sophisticated financial sector. It encompasses the banking, insurance and securities industries, and includes both those financial service providers seen as intermediaries (e.g. banks, insurance companies and pension funds) and those seen as facilitators (e.g. stockbrokers, securities underwriters, investment bankers, etc) (Hawkins, 2001, 4). An independent regulatory authority regulates each of these industries – the Registrar of Banks in the case of banking institutions (comprised of the Bank Supervision Department of the South African Reserve Bank), and the Financial Services Board in the case of the insurance industry and the securities market, although the JSE is the *de-facto* daily regulator of the latter (ibid, 7).

Furthermore, Hawkins (ibid, 7) notes that:

> "Since the opening of the economy associated with the democratic elections in 1994, the sector has experienced the promulgation of regulatory legislation in each of the industries, which has improved the level of compliance with the relevant international standards body. In the case of the banking industry, this is the Bank for International Settlements (BIS) in Basle. In the insurance industry, the International Association of Insurance Supervisors (IAIS) sets the core principles, and for the securities industry, the International Organisation of Securities Commissions (IOSCO) sets the standards. The recent changes in legislation have resulted in a financial sector that largely meets existing requirements of each of these regulatory authorities."

This suggests that the regulatory context in SA should be suitably geared to international best practice.

Below we present some comparative indicators of the depth, structure and efficiency of the financial sector. Firstly, we focus on the share of domestic credit provided by the banking sector to GDP, the contribution of liquid liabilities to GDP, and the contribution of quasi-liquid liabilities to GDP. These indicators give us an idea of the depth and structure of the financial sector. Secondly, we focus on the ratio of bank liquid reserves to bank assets, the interest rate spread and the spread over LIBOR (London inter-bank offered rate). These indicators give us an ideal of the structure and efficiency of the financial sector. The data in this section is taken from the World Bank Development Indicators (2001, 282-284).

Domestic credit provided by the banking sector includes all credit to various sectors on a gross basis, with the exception of credit to the central government, which is net. The banking sector includes monetary authorities, deposit money banks, and other banking institutions for which data are available (including institutions that do not accept transferable deposits but do incur such liabilities as time and savings deposits, e.g. building societies). The ratio of domestic credit provided by the banking sector to GDP is used to measure the growth of the banking system because it reflects the extent to which savings are financial. In a few countries, governments may hold international reserves as deposits in the banking system rather than in the central bank. Since the claims on the central government are a net item (claims of central government minus central government deposits), this net figure may be negative, resulting in a negative figure for domestic credit provided by the banking sector.

Liquid liabilities (also known as broad money) measures the percentage of M3 money supply to GDP. It is the sum of currency and deposits in the central bank (M0), plus transferable deposits and electronic currency (M1), plus time and savings deposits, foreign currency transferable deposits, certificates of deposits, and securities repurchase agreements (M2), plus travellers checks, foreign currency time deposits, commercial paper, and shares of mutual funds or market funds held by residents. Liquid liabilities include bank deposits of generally less than one year plus currency. Their ratio to GDP indicates the relative size of these readily available forms of money – money that owners can use to buy goods and services without incurring any cost.

Quasi-liquid liabilities are the M3 money supply less M1. It is comprised of long-term deposits and assets – such as certificates of deposit, commercial paper, and bonds – that can be converted into currency or demand deposits, but at a cost.

The table below presents these indicators.

Table 1: Selected indicators of the depth and structure of the financial sector

	Domestic credit provided by banking sector		Liquid Liabilities		Quasi-liquid liabilities	
	% of GDP		% GDP		% GDP	
Countries	1990	1999	1990	1999	1990	1999
South Africa	97.8	155	44.6	45.1	27.2	12.7
Malaysia	75.7	151.6	64.4	136	43	110.8
S Korea	65.7	96.6	54.6	93.8	45.7	84.6
Chile	73	72.5	40.7	52.2	32.8	41.4
Czech Republic	N/a	62.7	N/a	67.9	N/a	43.5
Brazil	89.8	51.8	26.4	31.8	18.5	25.3
Turkey	19.4	49.8	24.1	51.8	16.4	46.2
Poland	18.8	39.3	32.8	42.8	16.6	28.5
Argentina	32.4	35.6	11.5	31.6	7.1	23.9
Mexico	36.6	28.8	22.8	28.9	16.4	20.4
Gabon	20	22.5	17.8	16.6	6.6	6.6
Botswana	-46.4	-69.7	22.1	31.2	13.7	23.6
USA	*110.9*	*164.2*	*65.5*	*62.4*	*49.4*	*46.4*
Germany	*105.4*	*145.2*	*67.9*	*78.1*	*N/a*	*N/a*
Japan	*266.8*	*144*	*187.5*	*125.8*	*159.6*	*77.4*

Source: World Bank, 2001, 282-284

The table shows the contribution of the banking sector, liquid liabilities and quasi-liquid liabilities to GDP for a selection of upper-middle income countries and three comparative developed countries. Data are ranked by the percent contribution of the banking sector to GDP in 1999.

Immediately evident from the table is South Africa's prominent position as the upper-middle income country with the greatest percentage of domestic credit provided by the banking sector in 1990 and 1999, with Malaysia following closely. This level of financial depth is in fact favourably comparable to the sample of developed countries included in the table. The growth of the financial sector as measured by the difference

between 1990 and 1999 figures is greater in the case of Malaysia, though both countries had among the fastest growing financial sectors in the entire sample.

The data tells a very different story when considering both liquid and quasi-liquid liabilities however. As far as liquid liabilities is concerned, we can see that South Africa has a fairly moderate percentage contribution to GDP relative to other upper middle-income countries, combined with very low growth rates between 1990 and 1999. When evaluated in conjunction with the data on quasi-liquid liabilities, it becomes clear that South Africa's financial sector has undergone a period of relative austerity as far as medium-term asset holdings are concerned, as it is the only upper-middle income country that has seen a decline in quasi-liquid liabilities to GDP. This could perhaps be partly explained by South Africa's status as a new-comer to financial sector deregulation among this sample of countries[2], as well as the fact the 1990s was a tumultuous decade during which considerable uncertainty was present.

Further insight into these trends can be gleaned from the following table.

Table 2: Selected indicators of the structure and efficiency of the financial sector

	Ratio of bank liquid reserves to bank assets		Interest rate spread		Spread over LIBOR	
	%		Lending minus deposit rate percentage points		Lending rate minus LIBOR %'ge points	
Countries	**1990**	**1999**	**1990**	**1999**	**1990**	**1999**
Turkey	16.3	19.9	N/a	N/a	N/a	N/a
Czech Republic	N/a	18	N/a	4.2	N/a	3.3
S Korea	6.3	17.2	0	1.4	1.7	4
Poland	20.6	10.7	462.5	5.8	495.9	11.6
Brazil	6.7	8.4	N/a	N/a	N/a	N/a
Malaysia	5.9	8.3	1.3	3.2	-1.1	1.9
Botswana	11	7.5	1.8	5.2	-0.4	9.2
South Africa	3.3	7	2.1	5.8	12.7	12.6
Mexico	4.2	6.4	N/a	16.3	N/a	20.5
Gabon	2	5.7	11	17	10.2	16.6
Chile	3.8	4	8.6	4.1	40.5	7.2
Argentina	7.4	2.6	N/a	3	N/a	5.6
USA	*2.3*	*6.6*	*1.9*	*2.7*	*1.7*	*2.6*
Germany	*3.2*	*6.6*	*4.5*	*6.4*	*3.3*	*3.4*
Japan	*1.5*	*1.8*	*3.4*	*2*	*-1.4*	*-3.3*

Source: World Bank, 2001, 282-284

The ratio of bank liquid reserves to bank assets (note that data is cited on an end-of-year basis) is the ratio of domestic currency holdings and deposits with the monetary authorities to claims on other governments, non-financial public enterprises, the private sector, and other banking institutions. The ratio captures the banking system's liquidity levels. In countries whose banking system is liquid, adverse macro conditions should be less likely to lead to banking and financial crises. We see that South Africa's liquidity is approximately average when compared to the balance of the middle-income sample, although it increased by over 100% between 1990 and

[2] Here, the relaxation of exchange controls could have accounted for the decline in quasi-liquid liabilities.

1999. The ratio is also similar in both magnitude and direction to the USA and Germany over the period under investigation.

As far as the interest rate spread[3] is concerned, we can see that SA saw a broadening of the percentage points in line with all other nations except Poland, Chile and Japan, where the lending minus deposit rate narrowed between 1990 and 1999. Hence there seems to have been a general loss of efficiency in money markets across these nations over this period. However, this is not indisputably corroborated in the following column, where the spread over LIBOR (London inter-bank offered rate)[4] (defined as the interest rate charged by banks on short-term loans in local currency to prime customers minus LIBOR) shows more variation in the results when compared to the interest rate spread.

For SA, the high but relatively constant figures for the spread over LIBOR indicate that there is a significant deviation in interest rates relative to the rest of the sample, implying that efficiency is low. However, the minor differences between the figures reflect very different circumstances and in fact hide important aspects of SA's monetary policy regime during this period. In 1990, the spread over LIBOR was perhaps more indicative of instability and uncertainty in the financial sector, whereas by 1999 the monetary policy regime was far more stable (albeit recovering from the shock of the Asian crisis of 1998). 1999 was also the year that monetary authorities shifted the focus of policy explicitly towards inflation targeting, suggesting that, at least initially, interest rates were to be sacrificed to the goal of lowering inflation.

By way of summary then, we can conclude that:

- The depth of SA's financial sector, measured in terms of the percentage contribution of domestic credit provided by the banking sector to GDP, was the most significant among the sample of middle-income countries evaluated in 1990 and 1999, and was comparable to that of the USA and Germany.
- The structure of SA's financial sector, measured by the percentage contribution of liquid liabilities and quasi-liquid liabilities to GDP, indicates that the structure of the financial sector shifted during the period 1990 – 1999 relative to the sample of countries evaluated. This was seen in the marginal growth of liquid liabilities and, more importantly, in the decline in quasi-liquid liabilities.

[3] The interest rate spread is the interest rate charged by banks on loans to prime customers minus the interest paid by commercial or similar banks for demand, time or savings deposits. It is an important indicator of the efficiency of the financial sector, as it indicates the margin between the cost of mobilising liabilities and the earnings on assets. A narrowing of the interest rate spread reduces transaction costs, which lowers the overall cost of investment and is therefore crucial to economic growth. Interest rates reflect the responsiveness of financial institutions to competition and price incentives. The interest rate spread, also known as the intermediation margin, is a summary measure of a banking system's efficiency. To the extent that information about interest rates is inaccurate, banks do not monitor all bank managers, or the government sets deposit and lending rates, the interest rate spread may not be a reliable measure of efficiency.

[4] LIBOR is the most commonly recognised international interest rate and is quoted in several currencies. The average three-month LIBOR on US dollar deposits is used in this data. The spread over LIBOR reflects the differential between a country's lending rate and the London inter-bank offered rate (ignoring expected changes in the exchange rate). It is also a measure of the efficiency of the financial system, and a comparative international indicator. Interest rates are expressed as annual averages.

- The liquidity of SA's financial sector, measured by the ratio of bank liquid reserves to bank assets, increased by over 100% between 1990 and 1999. The gain in liquidity is positive and necessary in a period where international speculation plays such a volatile role in money markets.
- The efficiency of the financial sector, measured by the interest rate spread and the spread over LIBOR, has declined somewhat in absolute magnitude. However, given the consolidation of macro-economic and monetary policy during the period, this is not a systemic problem and should reverse in the medium term.

Thus it is clear that SA certainly does have a competitive financial sector. However, the extent to which the MF sector has contributed towards the consolidation of the overall financial sector with respect to its depth, reduction in quasi-liquid liabilities, increases in liquidity or its efficiency cannot be determined with accuracy at this point due to the lack of statistics for the sector at the national level. Below, we investigate the structure and size of the MF industry in an attempt to understand its contribution to the financial sector and the economy more generally.

THE STRUCTURE OF THE MF INDUSTRY

We now turn our attention to the structure of the MF industry in its current form. Firstly we discuss the types of institutions in the sector before evaluating the characteristics of these institutions in more detail. We then focus on the size and scope of the sector.

The types of institutions in South Africa comprise the following:

- Section 21 companies
- Co-operatives
- Trusts
- Closed Corporations
- Public Companies
- Private Companies
- Banks

The contribution of each of these institutions is broadly captured in the following table.

Table 3: Registration Statistics (1999 / 2000)

Industry	Number Registered	By % of Industry	Number of Branches	By Percent of industry
Aggregate	*1,309*	*100.0%*	*5,051*	*100.0%*
Closed Corps.	1,015	78.0%	1,669	33.0%
Private Cos.	182	14.0%	2,535	50.0%
Trusts	76	6.0%	129	3.0%
Section 21	16	1.0%	48	1.0%
Banks	9	1.0%	342	7.0%
Public Cos.	9	1.0%	326	6.0%
Co-operatives	2	0.0%	2	0.0%

Source: MFRC

We can see from the table that CCs represent the overwhelming majority (78%) of registered enterprises, followed distantly by private companies (14%) and trusts (6%). However, private companies have the greatest number of branches as expected, with CCs following closely.

Table 4: Disbursement Statistics (Estimates for the year 1999 / 2000)

Industry	Total Disbursements (Rands)	% of Industry by Value	No. of Loans Disbursed	% of Industry by Number
Aggregate	*R 12,950,533,089.00*	*100.0%*	*8,997,254*	*100.0%*
Banks	R 4,977,518,753.00	38.0%	669,287	8.0%
Private Cos.	R 4,129,801,277.00	32.0%	2,981,248	33.0%
Closed Corps.	R 2,387,332,901.00	18.0%	3,439,960	38.0%
Public Cos.	R 983,488,023.00	8.0%	1,413,492	16.0%
Trusts	R 240,642,899.00	2.0%	366,482	4.0%
Co-operatives	R 198,967,480.00	2.0%	90,390	1.0%
Section 21	R 32,781,756.00	0.3%	6,395	0.1%

Source: MFRC

Disbursements figures show that banks comprise the largest component of the micro-finance sector with respect to total disbursements, followed closely by private companies and more distantly by CCs. This does not translate into a commensurate number of loans disbursed however. By evaluating the ratio of total disbursements to number of loans disbursed, we obtain the average size of the loans disbursed, and so obtain important insights into the industry. Here we see the following trends:

Table 5: Average Loans Disbursements

Banks	Public Cos	Private Cos	CCs	Trusts	Co-ops	Section 21
R7,437.05	R695.79	R1,385.26	R694.00	R656.63	R2,201.21	R5,126.15

The table shows that Banks provide loans of greater value compared to any other component of the sector at R7,427.05 on average, followed (surprisingly) by Section 21 companies and Co-operatives. This suggests that there is no unidirectional relationship between the degree of formality and / or type of institution and size of loan disbursed. Thus it seems clear that micro-financiers must be actively targeting niche markets before they establish.

The large average disbursements among Section 21 companies also suggest that these institutions may have information advantages concerning lenders relative to banks and other profitable companies. Equally probable, however, is the fact that the data could simply reflect the fact that Section 21 companies are less risk-averse than other financial institutions due to donor funding.

We now turn our attention to total loans outstanding, which is presented below.

Table 6: Outstanding Loan Statistics (Estimates for the year 1999 / 2000)

Industry	Gross Loans Outstanding (Rands)	% of Industry by Value	Number of Loan Debtors	Ave. Loan Size (Rands)
Aggregate	*R 10,984,317,410.00*	*100.0%*	*3,414,511*	*N/a*
Banks	R 5,280,483,101.00	48.1%	1,597,370	R 7,118.00
Public Cos.	R 2,540,161,129.00	23.1%	588,151	R 696.00
Private Cos.	R 2,179,432,404.00	19.8%	704,612	R 1,385.00
Closed Corps.	R 508,305,471.00	4.6%	429,779	R 694.00
Trusts	R 301,000,148.00	2.7%	36,077	R 657.00
Co-operatives	R 130,747,315.00	1.2%	46,187	R 2,201.00
Section 21	R 44,187,843.00	0.4%	12,335	R 5,126.00

Source: MFRC

The table shows that Banks have the greatest amount and percentage of loans outstanding, with private and public companies following predictably behind them. We also see differing trends to that seen in the disbursements section with respect to the rank of institutions. It is evident, for example, that CCs disburse proportionally higher relative to total outstanding loans, suggesting that they target clients (and thus disburse loans) with shorter time-horizons.

The average amount of cash outstanding per debtor is tabulated below:

Table 7: Average Outstanding Loans

Banks	Public Cos	Private Cos	CCs	Trusts	Co-ops	Section 21
3,305.74	4,318.89	3,093.10	1,182.71	8,343.27	2,830.83	3,582.31

The table shows that, interestingly, average outstanding loans are greatest for Trusts, followed by Public companies and Section 21 companies. This reflects important differences in the industry, and we can infer from the data that Trusts, Public companies and Section 21 companies must either have better information than banks do about lenders, contributing to the higher average outstanding loans, or that they have poorer repayment rates (and hence higher default statistics).

The Scope of the Sector

In this section we are concerned with whether MFIs lend to small, medium and micro enterprises (SMMEs) or to consumers or both, and the extent of such lending. In a recent (brief) survey by the Micro-Finance Regulatory Council (MFRC)[5], it was revealed that MFIs formed specifically to serve the SMME sector have not enjoyed particular success (MFRC, 2001b, 1). There are about twenty non-bank MFIs, which are typically donor funded Section 21 companies that serve approximately 66,000 micro-enterprise clients. Opposed to this segment is the commercial banking sector, which offers a variety of loans and transactional products to *established* SMMEs.

[5] Thanks are provided to Rashid Ahmed of the MFRC for sending me a draft report of the results of this survey.

Commercial banks, however, are reported to have neither the desire or experience to finance start-up businesses, where high transaction costs for smaller loans, inadequate collateral / owners equity and no track record are often stated as prohibiting factors preventing banks from lending below R50, 000.00 (ibid, 1).

Furthermore, MFRC statistics indicate that 418 micro lenders already lend to some 153,000 SMMEs, representing about 4 percent of gross industry disbursements. A snapshot survey conduced by the MFRC amongst 30 randomly chosen lenders revealed the following results (ibid, 1):

- Although 60 percent of respondents had less than 20 percent of their loan portfolio devoted to SMME lending, 76 percent regarded SMME lending as either important or very important, whilst over 90 percent regarded it as important or very important within the next 3 years.
- Given a favourable regulatory environment, the actual number of loans and SMME loan Rand value disbursements could be increased by a minimum of five times more than present.

We can thus conclude that the majority of lending is to the consumer sector at present.

The Size of the MF Sector Within the Financial Sector

We now turn our attention to the contribution of the MF industry to the financial sector in SA. However, we have encountered numerous statistical and definitional problems in this effort. Our first attempt at defining the sector uses the total value of loans disbursed by the MF sector in 1999/2000 (i.e. R12.9 billion) as a percentage of total credit extended by the monetary sector in 2000 (i.e. R621.3 billion). This results in an estimate of 2.08%. The monetary sector is defined as "a consolidation of the balance sheets of institutions within the monetary sector, i.e. the South African Reserve Bank, the former National Finance Corporation, Corporation for Public Deposits and the so-called "pooled" funds of the former Public Debt Commissioners, the Land Bank, Postbank, private banking institutions (including the former banks, discount houses and equity building societies) and mutual building societies. Coin in circulation is included in this consolidation" (SARB, 2000, S-18).

However, this is not a totally valid comparison[6], and remains an ongoing research task. Despite this, it should be stated that for a previously non-existent industry to rise to over two percent of the financial sector in ten years is remarkable, and testimony to a significant latent demand and a conducive regulatory climate. In the sections that follow, we investigate each of these factors.

[6] I have discussed the issue of the definition of the size of the MF industry with the CEO of the MFRC – Gabriel Davel. He is uncomfortable with the definition used above because it does not allow us to examine the importance of the sector for the lower end of the income distribution that is, after all, the primary client base of the MF industry. 'Total credit extended' as defined by the SARB includes corporate credit extension, mortgages and financial leases, which are commensurate with luxury consumption, and hence inappropriate. On the other hand, there is also an under-counting problem because it is unclear whether credit extension by retail institutions is included in this definition.

THE DEMAND FOR DEBT IN SA

In this section we evaluate the descriptive characteristics of the demand for debt among urban households. We are interested in the extent of indebtedness among the populace and the changes in the level of indebtedness during the 1990s. The objective of this section is to assess the characteristics of consumer indebtedness in an attempt to provide further insight into the reasons why the MF industry grew so rapidly in the 1990s. Data for this section is obtained from Statistics South Africa (Income and Expenditure Survey, 1995) and WEFA Southern Africa (Income and Expenditure Dataset, 1999)[7]

The variables used for this analysis include both indebtedness variables and measures of household cashflow. Indebtedness variables include:

1. Total outstanding debt as a percentage of total income (denoted Dt/Y));
2. Total outstanding debt to disposable income (denoted Dt/YD);
3. Total outstanding debt as a percentage of regular income minus tax (i.e. regular disposable income) (denoted Dt/YRD);
4. Total outstanding debt as a percentage of expenditure (denoted Dt/Ex).

Cashflow variables include:

1. Total income as a percentage of total expenditure (denoted Y / Ex);
2. Total disposable income as a percentage of total expenditure (denoted YD/Ex);
3. Regular income as a percentage of total expenditure (denoted YR/Ex);
4. Regular disposable income to total expenditure (denoted YRD/Ex);
5. Indirect (or transitory) income to total expenditure (denoted YI/Ex)

The Extent of Indebtedness

In this section we are interested in the extent of indebtedness among different income categories in 1999. The tables below display these trends.

Table 8: Debt and Cashflow by Income Category

	INDEBTEDNESS			
INCOME GP	Debt (Dt)/ Income (Y)	Dt/YD (Disposable Income)	Dt/YRD (Regular Disposable Y)	Dt/Ex (Expenditure)
0-5000	9.87	9.87	11.21	9.56
5001-10000	8.62	8.72	10.00	7.88
10001-15000	10.17	10.51	12.30	9.18
15001-20000	13.11	14.25	17.33	11.83
20001-25000	21.68	25.19	27.74	16.85
25001-30000	21.55	23.44	30.80	18.50
30001-40000	29.73	33.62	44.97	23.65
40001-50000	26.84	31.08	33.16	23.33
50001-75000	41.28	48.36	64.59	37.35
75001-150000	55.63	65.57	81.12	50.16
> 150000	59.39	69.93	101.37	57.82

[7] For a detailed discussion of the two datasets, and the rationale for the indicators used, please consult Appendix One.

INCOME GP	HOUSEHOLD CASHFLOW				
	Y/Ex	YR (Regular Income)/Ex	YI (Indirect Income)/Ex	YD/Ex	YRD/Ex
0-5000	99.92	80.85	19.07	99.92	80.85
5001-10000	98.44	87.87	10.57	98.09	87.52
10001-15000	104.62	91.83	12.79	102.78	89.99
15001-20000	98.95	89.30	9.65	93.08	83.43
20001-25000	95.12	82.79	12.33	88.87	76.54
25001-30000	102.15	90.42	11.74	95.04	83.31
30001-40000	97.75	87.07	10.68	89.54	78.86
40001-50000	101.34	90.79	10.55	91.37	80.82
50001-75000	101.63	89.83	11.81	90.81	79.00
75001-150000	100.25	88.64	11.62	87.09	75.48
> 150000	109.72	84.04	25.67	95.95	70.28

Source: Wefa Southern Africa, Own Calculations

We can see from the table that the lower income categories have almost no variation across the four measures of indebtedness, while the higher income categories unambiguously display the opposite. This conforms well to intuition concerning income, where, because the lower income categories do not pay tax (or when they do, it is very little in absolute terms) or are often seasonally employed or unemployed, the differences between total income, regular income and disposable income are insignificant. Of course, the converse applies to the upper income classes.

The upward trend in debt between the R40,001-R50,000 and the R50,001-R75,000 income groups is instructive of a changing debt profile. Here, housing becomes a significant contributor to debt. However, both owner-occupied and owner-rented housing are special cases as far as debt is concerned, because while it is reflected as debt in the above graph (i.e. a liability to the household), it is in fact an investment (i.e. an ordinarily appreciating asset) to the household.

What is also immediately visible from the graph is the theory conforming relationship between income and indebtedness, that is, indebtedness increases as income increases. The result is furthermore robust across all four measures of indebtedness, further reinforcing the observation.

Low levels of debt at the bottom end of the income distribution can perhaps be partly explained by a lack of access to financial instruments in the formal banking sector (including, most importantly, the disproportionately low numbers of group-based lending schemes that target the poor), which is corroborated by low levels of collateral amongst the poor. To this extent the results suggest that poor consumers who ordinarily have lower levels of short and long-term (asset) liquidity, act rationally to reduce their overall debt exposure given the uncertainty surrounding income in the household. This is a profoundly important observation because it suggests that consumers of debt are risk-averse despite asymmetric information on interest rates and different lending schemes.

As far as cashflow is concerned, we can see that at the lower end of the income distribution, total income to total expenditure and disposable income to total

expenditure are very close to equal, before the trends gradually depart as taxation starts becoming more significant. Naturally, this observation is consistent in the direct income to expenditure and direct disposable income to expenditure figures. However, the important contribution of indirect income to the lowest income category is instructive, and it remains significant throughout the lower end of the distribution and also towards the top end. An important reason that could help explain this trend is the vacillation of individuals from lower income groups between the formal and informal sectors of the economy, while at the top end of the distribution we would see returns from investments and other windfall gains becoming prominent. We can infer from this that the informal sector makes an important contribution to buffering income (and thus to smoothing consumption).

The fact that the regular disposable income to total expenditure figures trend towards a fairly consistent decline across the entire income distribution is indeed theoretically consistent, for we would expect that there is an inverse relationship between income and cashflow. That is, the highest income categories would show levels of cashflow clearly below that of the lower income groups, due to the expectation that future income would, at a minimum, not decrease[8], and that long-term assets would induce less discretionary spending habits.

It is important to understand why households behave in the way that they do with respect to indebtedness and cashflow. However, it is impossible to do this without analysing the expenditure patterns of households, which we undertake below.

In this section we analyse the proportion of expenditure that is allocated to consumption and debt, and in so doing create consumption and debt *schedules*, which simply disaggregate the proportion of households' expenditure according to appropriately defined line items for each of these variables. The schedules are firstly displayed together in tabular form before being treated separately – a necessary task owing to the fact that they have been constructed to display specific expenditure patterns.

The consumption schedules measure only the proportion of households' expenditure on basic needs, including (1) food (this item aggregates total expenditure on food, beverages and tobacco), (2) housing[9], (3) clothing, (4) furniture, (5) health care, (6) transport, (7) education, and (8) other, to total consumption. The category "Other" is defined as the sum of all other items of expenditure, including cash paid to domestic workers; personal care; other household consumer goods; household services; household fuel; computer and telecommunication equipment; household communication; reading matter; recreation, entertainment and sport (including equipment; other goods; licenses and rental); miscellaneous expenditure (including goods; membership fess, donations, gifts; income tax; finance and insurance; other expenditure; net loss from business activities; own production and consumption (including harvest and livestock)).

[8] NB: This observation is valid if we make the not unreasonable assumption that households at the top end of the income distribution represent skilled employees whose services are in short supply.

[9] NB: No separation is made between housing owned or housing rented in this section, as our aim is simply to evaluate the proportion of household's expenditure on housing, regardless of whether it is owned or rented.

The debt schedule is not based on expenditure data at all, but rather on the variable "total outstanding debt". Here, we measure the proportion of total debt outstanding on a bond, car, furniture, overdraft and credit card, retail stores and family loans, to total outstanding debt (i.e. the sum of the bond, car, furniture, overdraft, retail stores and family loans figures).

Table 9: Consumption and debt schedules

	INCOME CATEGORY										
	0-5000	5001-10000	10001-15000	15001-20000	20001-25000	25001-30000	30001-40000	40001-50000	50001-75000	75001-150000	>150000
CONSUMPTION SCHEDULE											
House	8.73	12.71	15.39	17.85	20.04	17.62	19.52	20.32	22.30	25.96	21.76
Food&Bev	59.21	53.40	47.62	39.35	36.61	34.05	30.68	27.98	23.72	17.70	12.06
Clothing	4.12	5.64	6.00	5.18	5.48	5.43	4.71	4.89	4.46	3.20	2.25
Furniture	1.16	2.06	3.43	4.45	4.87	5.62	5.51	4.76	3.78	2.81	2.15
Health	0.66	1.28	1.19	1.16	1.59	2.28	2.60	4.05	4.45	5.00	4.05
Transport	3.32	4.89	5.24	5.37	5.58	6.61	7.16	7.68	8.23	9.32	11.32
Education	1.10	1.06	0.92	1.91	1.41	1.67	1.73	2.04	1.70	2.02	2.18
Other	21.70	18.96	20.21	24.73	24.42	26.73	28.09	28.28	31.35	34.00	44.23
DEBT SCHEDULE											
Bond	0.00	0.30	1.73	1.99	9.26	6.45	13.75	12.77	22.45	33.67	46.22
Car	0.00	0.27	0.75	1.19	0.42	2.87	6.64	6.82	15.48	25.14	25.14
Furniture	12.27	13.77	20.77	41.25	39.97	50.07	36.78	36.69	27.03	13.00	4.92
O/D & CC	1.17	0.05	0.84	0.70	1.65	1.16	4.10	5.63	5.78	9.27	14.20
Retail	48.12	59.05	55.26	39.26	34.70	29.08	28.92	30.60	23.11	14.37	6.98
Family loans	38.44	26.58	20.65	15.62	14.01	10.37	9.81	7.48	6.15	4.55	2.55

As far as the consumption schedule is concerned, it is immediately evident that the items of greatest importance to poorer households are food and beverages and then housing costs. If we move across the income distribution, we find that total expenditure on food decreases as income rises, while expenditure on housing is far more stable across the income groups. Both of these trends conform well to intuition concerning income and expenditure, namely that the lower the levels of income, the greater the proportion of income spent on food. On the other hand, housing remains fairly constant due to the fact that, at the higher end of the income distribution, people spend greater absolute amounts of money on housing (by taking out a bond for example). This rise in absolute expenditure on housing implies a more constant relative proportion of income spent on housing despite the differences in wealth.

We now proceed to analyse the line items of expenditure on debt. Evident from the table is a vastly different debt profile as we proceed across the income distribution. At the lower end, debt is primarily sourced from furniture stores, retail institutions and family, while at the top end of the distribution, debt is procured for housing and vehicles primarily, with a growing contribution by overdraft and credit card facilities. Debt on durable commodities (such as furniture) becomes more prominent in the fourth income category (R15K-R20K), and in every category thereafter up until the

second last income category (R75K-R150K), where housing becomes the largest debt contributor.

An interesting point is the fact that family loans do not disappear entirely in the debt profile as we move towards the upper end of the distribution, although it does consistently decrease as income increases. The significance of these observations is profound. At the lower end of the income distribution, we see that debt is procured from furniture and retail institutions presumably through hire purchase contracts, which translates into greater costs of debt or higher interest rates. It therefore implies that households are more vulnerable when they are forced to borrow from these sources.

Changes in Cashflow and Indebtedness: 1995-1999

Now that we have investigated the particular characteristics of indebtedness and cashflow, we need to understand how they have changed between two time points. We have chosen 1995 and 1999 for this purpose, as the data only allows for this comparison.

The table below displays the changes in cashflow and indebtedness.

Table 10: Changes in Cashflow and Indebtedness: 1995-1999

INCOME GROUP	CASHFLOW (% CHANGE)			INDEBTEDNESS (% CHANGE)			
	Y / Ex	YRD / Ex	YI / Ex	Debt:Y	Debt:DisY	Debt:RegY	Debt:Ex
0-5000	-0.21	-8.92	68.10	23.59	23.58	24.97	26.65
5001-10000	-4.47	-1.64	-19.36	-4.02	-5.10	-6.62	-8.68
10001-15000	2.35	6.12	4.36	-17.91	-21.60	-24.45	-17.74
15001-20000	-0.91	3.43	-19.87	-34.25	-38.61	-33.70	-30.47
20001-25000	-5.95	-6.35	4.46	-15.23	-10.11	-33.74	-26.42
25001-30000	2.54	5.62	5.62	-22.38	-27.72	-20.23	-24.11
30001-40000	-5.51	-4.09	1.67	11.01	0.92	478.37[10]	-4.81
40001-50000	-3.59	-2.21	-0.61	-27.55	-27.82	-24.35	-34.74
50001-75000	-1.49	1.27	-1.94	-14.13	-14.26	-11.18	-18.25
75001-150000	-4.40	-0.03	-13.30	-6.93	-9.25	-10.04	-14.36
> 150000	0.45	0.59	0.36	10.94	10.18	-10.39	3.06

Dealing with cashflow first, the table displays the three most important cashflow variables: total income, regular disposable income and indirect income as percentages of total expenditure. Across the income categories, we see that there is a great deal of inconsistency as far as cashflow is concerned. Clear decreases in cashflow are present at the lower end of the income distribution (i.e. the first two income categories). However, the lowest income category has also seen a 68.10 percent increase in indirect income to total expenditure, which implies that the importance of this source of income (and hence the reliance on the informal sector) has grown. At the top end of the distribution, it is interesting to note that the highest income category is the only

[10] This number is exceeding large due to the effects of outliers in the regular disposable income variable in this income category.

category that has witnessed an increase in cashflow levels. The middle of the distribution does not display significant trends either way in this regard.

Turning to indebtedness by income category, we see that debt has increased by approximately 24 percent for all indebtedness categories for the R0-R5K income group. This immediately suggests that households within this income category were able to better access credit over the time period. However, a degree of caution should be exercised here for there is no evidence of the same for the next few income categories. Indeed, the R15K-R20K income group actually has the biggest decrease in indebtedness figures at over 30 percent for all indebtedness variables. Unfortunately, we do not have sufficient information to evaluate why this took place, though one explanation could be that the rise in interest rates over the period 1995-1999 actually deterred households in this income category from taking out further loans, while those households in the R0-R5K income category received access to new forms of credit for the first time.

As far as the changes in consumption and debt schedules are concerned, the following table refers.

Table 11: Consumption and Debt Schedules: % Change

	INCOME CATEGORY										
CO-VARIATE	0-5000	5001-10000	10001-15000	15001-20000	20001-25000	25001-30000	30001-40000	40001-50000	50001-75000	75001-150000	>150000
CONSUMPTION SCHEDULE											
House	-4.60	20.98	22.26	23.09	38.21	11.79	21.11	2.27	7.35	6.11	-21.25
Food&Bev	5.10	6.05	19.20	15.55	20.24	25.52	20.48	32.40	28.01	34.94	51.68
Clothing	-39.55	-26.91	-16.29	-26.76	-16.78	-10.51	-21.29	-14.88	-6.48	-5.75	0.22
Furniture	-42.57	-49.35	-42.28	-35.12	-36.10	-30.04	-14.91	-8.10	-10.81	-8.10	-5.07
Health	-27.47	9.66	13.40	-34.36	-16.63	-11.49	-28.05	9.19	-1.77	14.53	41.78
Transport	-14.49	-3.66	5.93	-5.79	-24.03	-0.18	-5.09	-9.74	-9.22	-8.97	-11.04
Education	20.97	3.09	-44.21	28.45	-13.82	-12.39	-2.41	24.67	-16.43	-3.16	31.51
Other	8.66	-5.56	-24.31	-13.41	-18.49	-16.26	-14.95	-17.36	-13.04	-13.45	3.65
DEBT SCHEDULE											
Bond	0.00	-44.78	-31.89	-74.74	-11.26	-52.94	5.82	-41.83	-14.22	-19.17	4.31
Car	0.00	-47.05	-36.24	90.03	-91.52	-56.15	-6.97	-51.19	-28.19	-0.36	-4.81
Furniture	13.77	-16.29	-41.83	1.56	-14.68	44.98	3.04	30.19	43.11	36.00	31.27
O/D & CC	219.56	-92.87	67.34	-49.64	-6.12	-72.50	-28.34	7.87	-27.19	-11.52	-9.00
Retail	-18.45	4.80	24.56	14.43	34.59	-8.80	-2.38	26.30	21.03	44.77	2.11
Family loans	28.81	4.44	36.47	7.63	43.07	13.91	14.46	16.29	7.15	61.11	-11.75

Dealing with consumption first, we can see from the table that expenditure on housing has increased significantly throughout the entire income distribution with the exception of the lowest and the highest income category. This implies that the cost of both renting and purchasing housing has increased significantly over the period, and further restricted spending on all other goods except food and beverages, which has

generally increased across the income distribution. We can describe this as a substitution effect, induced by changes in one category but affecting all others.

Changes in the composition of debt over 1995-1999 are very interesting indeed. In the lowest income category, it is immediately apparent that overdraft and credit facilities have become far easier to access, contributing to incredible growth over the period of 219.56 percent (though it is important to state that the absolute amounts in this income category are very low). Less significant, though still material are the rising percentages of family loans and furniture – trends that are somewhat predictable given the importance of these sources of debt to the poor. However, there has also been a significant decrease in loans from retail institutions, which is perhaps best explained by the rise in overdraft and credit facilities. Here, we can make the reasonable assumption that interest rates must have been lower for newer credit facilities when compared to retail stores, inducing a shift in the debt profile several-fold greater than the decline in retail loans could account for. In other words, the interest rates were low enough to not only absorb households who shifted their debt profile from retail to over-draft and credit institutions, but also to induce a large part of the total population in this income category to take out new loans.

However, this is then questioned by the figures in the next income category, where almost perfectly inverse shifts in the debt profile are witnessed. The surprising turnaround can be explained by the not unlikely case that those in the lowest income category took advantage of loans provided by new micro-financiers, who possibly lowered their short-term interest rates to induce the poorest households to incur debt from them. Because poorer households have an almost permanent demand for debt – owing to the fact that they need to smooth consumption on a perennial basis – they are more vulnerable to these scenarios.

Having noted this however, it is important to stress that the observations for overdraft and credit card facilities are precarious for the first four income categories at the bottom end of the income distribution, and this volatility remains across the income distribution. This suggests that changing debt profiles are at least as significant as the changes in this variable alone.

Lastly, a very important trend picked up at the bottom of the table is the consistent increase in family loans for all but the highest income category. This is entirely expected given the rise in interest rates associated with the Asian crisis of 1998, and the negative effect that this had on consumers of debt.

By way of summary then, we can say that the demand for debt has increased over the 1990s, but the sources of that debt have changed significantly. Family loans have become an important and rising form of credit, followed by furniture and retail stores. The latter is perhaps entirely expected given financial sector liberalisation. On aggregate, however, the contribution of housing and vehicles to debt has decreased in this period across the income distribution. This is a surprising trend, but a not unlikely one given that the 1999 data would have picked up changing consumer behaviour in response to interest rate hikes associated with the Asian crisis. The susceptibility of the poor to predatory lending practises raises the question of the role or the regulatory framework in SA, which we now turn to.

REGULATING THE MICRO-FINANCE INDUSTRY

Given the importance of the regulatory framework to the establishment of the industry in SA and elsewhere, the role of the state is of prime importance in understanding the sector. This section will review what is commonly perceived to be an optimal policy framework for the MF industry as well as the South African regulatory climate. Consequently we focus on a best-practice model developed by the Financial Sector Development department of the World Bank, and examine the extent to which the South African regulatory framework conforms to this model.

Towards An Optimal Policy Framework

The main tenet behind the regulation philosophy of the World Bank is to provide a transparent and inclusive regulatory framework within which MFIs can progressively evolve into formal financial institutions. The method employed to help achieve this is to use the analysis of MFIs liabilities to highlight the distinguishing features of different types of MFIs and focus on risk taking activities that need to be managed and regulated (v. Greuning et al, 1998, i).

The structure of liabilities highlights the primary sources of funding for MFIs. They include contributed equity capital, donor funds, concessional and commercial borrowings, members' savings, wholesale deposits from institutional investors and retail savings and sight deposits from the public. The important factors that differentiate MFIs from each other are therefore found mainly on the liabilities side rather than on the asset side of the balance sheet (ibid, i).

Three broad categories of MFIs are identified, including:

1. MFIs which depend on other peoples money (Category A)
2. MFIs which depend on members money (Category B)
3. MFIs which leverage the public's money (Category C)

Using this classification system[11], the paper recommends a tiered approach to external regulation, and develops a regulatory framework model to identify thresholds of financial intermediation activities that trigger a requirement for an MFI to satisfy external or mandatory regulatory guidelines. The table below summarises the regulatory framework model, indicating the fund-generating activities of different types of MFIs which trigger a need for mandatory external guidelines, and the proposed regulatory measures and agencies to carry them out.

[11] See Appendix Two for a more detailed exposition of the distinguishing characteristics of these MFIs.

Table 12: Regulatory Thresholds of Activities by Type of MFI

MFI TYPE	ACTIVITY THAT DETERMINES REGULATORY STATUS	PROPOSED FORM OF EXTERNAL REGULATION, IF REQUIRED	REGULATORY AGENCY
CATEGORY A MFIs			
Type 1 Basic Non-profit NGO	Making MF loans not in excess of grants and donated / concessional funds (loan capital)	None – Voluntary registration with Self-Regulatory Organisation	None, or Self-Regulatory Organisation
Type 2 Non-profit NGO with limited deposit-taking	Taking minor deposits, e.g. forced savings or mandatory deposit schemes, from MF clients in community	None – Exemption or exclusion provision of banking law; compulsory registration with Self Regulatory Organisation	Self-Regulatory Organisation
Type 3 NGO transformed into Incorporated MFI	Issuing instruments to generate funds through wholesale deposit substitutes (commercial paper, large-value certificates of deposit, investment placement notes)	Registration as corporate legal entity; authorisation from Bank Supervisory Authority or Securities & Exchange Agency, with limitations on size, term and tradability of commercial paper instruments	Companies' Registry Agency; Bank Supervisory Authority or Securities & Exchange Agency
CATEGORY B MFIs			
Type 4 Credit Union, Savings & Credit Cooperative Society	Operating as closed or open-common bond credit union; deposit-taking from member-clients in the community, workplace or trade	Notification to and registration with Cooperatives Authority or Bank Supervisory Authority; or certification and rating by a private independent credit rating agency	Cooperatives Authority or Bank Supervisory Agency or Credit Rating Agency
CATEGORY C MFIs			
Type 5 Specialised Bank, Deposit-taking institution, or Finance company	Taking limited deposits (e.g. savings & fixed deposits from general public beyond minor deposits exemption in banking law. MF activities more extensive than NGOs but operations not on scale of licensed banks.	Registration and licensing by Bank Supervisory Authority, with a limitation provision (e.g. savings & fixed deposits, smaller deposits-to-capital multiple, higher liquidity reserves, limits on asset activities and uses)	Bank Supervisory Authority
Type 6 Licensed Mutual-Ownership Bank	Non-restricted deposit-taking activities, including generating funds through commercial paper and large-value deposit-substitutes, from the general public	Registration and full licensing by Bank Supervisory Authority as a mutual-ownership or equity bank; compliance with capitalisation / capital adequacy requirements, loan loss provisioning and full prudential regulations	Bank Supervisory Authority
Type 7 Licensed Equity Bank			

Source: v. Greuning et al, 1998, ii

The authors then argue for a risk-based approach to financial regulation that focuses on the same issues that managers and boards of directors would be concerned with. Aside from highlighting the central role of institutional capital, the approach helps in identifying the risks that prudential regulation should address. The approach is deemed useful in designing regulatory standards that recognise the differences in the structure of capital, funding and risks faced by MFIs.

In this regard it is noted that the majority of MFIs are simple financial institutions that are not likely to be involved in sophisticated instruments and risks. Nonetheless, they are exposed to a number of the financial and operational risks faced by financial intermediaries. Some risks that can result in a defined loss are regarded as 'pure' risks, namely:

- Operational risk
- Credit risk
- Liquidity risk

On the other hand, 'speculative' risks that can result in either a profit or a loss include:

- Interest rate risk
- Market (price/investment) risk
- Currency risk

Operational risks arising from (i) fraud, (ii) error, and (iii) systems problems are especially important in MFI operations because of their internal governance structure. The major categories of risk faced by financial intermediaries, including MFIs, are summarised below.

Table 13: Major Categories of Risk

1. Balance-sheet structure	▫ Past and future risks resulting from intended or unintended changes in the size, structure and composition of the balance sheet
2. Profitability structure	▫ Risks resulting from changes in the composition of various sources of income and expense categories which affect the efficiency of the institution.
3. Capital adequacy / solvency	▫ The risk that the institution will have insufficient capital to continue operating, at its average risk-weighted asset profile, as well as the risk of non-compliance with internally set or externally prescribed minimum capital standards.
4. Credit risk	▫ The risk that a counter-party (including a sovereign counter-party) to a credit agreement will not be able or willing to service the interest or repay the principal
5. Treasury risk: ▫ Liquidity risk ▫ Interest rate risk ▫ Market risk ▫ Currency risk	 ▫ The risk that the institution has insufficient funds on hand to meet its obligations. This risk include concentration of large depositors / funders, reliance on volatile deposits / funds, and the currency structure of deposits / funds. ▫ The risk of an adverse flow of income and expenses and the ultimate diminution in the institutions net equity as the result of adverse changes in interest rates ▫ The risk of capital gain or loss resulting from investments in commodity, fixed interest, equity or currency markets ▫ The risk of changes in exchange rate having a negative impact on foreign receivables and foreign payables, when the institution has foreign currency-denominated balance sheet items.
6. Operational risk	▫ The risk from non-financial areas such as accounting, electronic data processing, loss of market share, employee relations, or physical events causing a financial loss or stoppage in operations.

Source: v. Greuning et al, 1998, 20

The financial risks to be managed internally through governance and regulated externally by supervisor authorities can be evaluated according to a number of analytical formats, and the paper discussed the merits of some of these approaches (see Appendix Three for details).

The nature of the MF business and the institutional structure of MFIs determine the priority ranking of risks that need to be managed. The processes of internal regulation through governance and mandatory external regulation are closely linked to each other. The authors content that several key players from the MFI sector, the regulatory agencies and the general public have a critical partnership and shared responsibility in the risk management process (ibid, ii).

The approaches to external supervision of MFIs can range from nonexistent to full regulation, either through the existing prudential regulatory framework or by modifying the existing regulatory requirements to fit the organisation and operating characteristics of MFIs. This could then be adapted to a 'tiered banking' approach and graduated regulation Another example is the initiative by leading credit unions in Guatemala, with the assistance of the World Council of Credit Unions (WOCCU) and the Consultative Group to Assist the Poorest (CGAP), to establish an independent credit rating and certification agency for credit unions (ibid, iii). Similar to the operation of credit rating agencies in capital markets, the private rating agency that is being established has no statutory authority but could wield significant power if investors and lenders respect its independence and credibility.

The SA Regulatory Climate

In many ways, the South African regulatory framework conforms to the ideal-type model proposed by the World Bank. For example, the reporting guidelines that lenders are required to conform to are very similar in principle to those identified by the World Bank (see "Rules of the MFRC" and specifically the "Reporting in Terms of Rule 7 of the Rules of the Micro Finance Regulatory Council" at www.mfrc.co.za)[12]. There is also no explicit prevention of smaller operations from becoming established financial institutions, other than the usual Prudential and Usury requirements affecting the industry.

Two further important issues are those concerning predatory lending practises and the setting of interest rates. As far as predatory lending practises are concerned, this is a complex regulatory task as it is difficult to identify, much less monitor. However, the increasing role of credit unions and related prudential legislation has allowed for a conducive regulatory climate that aims to minimise it. The extent to which this will be successful in curbing such lending practises is uncertain.

As far as the setting of interest rates are concerned, it is important to note that there are currently no ceilings on interest rates. Although the 1999 Exemption to the Usury Act did propose a ceiling of ten times that of prime, subsequent ruling by the courts disallowed this, and the ceiling was lifted. The major concern with no ceiling is that

[12] Despite the similarities, however, it is unclear whether the financial analyses undertaken by the MFRC conforms to those suggested in Appendix Three.

lenders could take unfair advantage of ill-informed clients. The rationale behind there being no ceiling is related to the fact that it is perceived to play a negative role in the industry; that is, it would drive lenders underground. Aside from the obvious consumer benefits that would be derived from the imposition of a ceiling, it is also important to note that the state sends a resonant market signal by doing so. Given the rapid growth of the industry, however, it is entirely feasible that the perceived negative impacts of a lack of a ceiling may in fact be over stated due to the abundant competition.

A separate issue to that of the regulator is the policy environment governing the industry. Here, the degree to which the regulatory climate assists all MF institutions, including rural NGOs and sophisticated banks, is unclear due to complementary (though sometimes contradictory) legislation that supersedes the operational level of a regulatory authority. It should be noted that the differences between MF institutions reflect important differences in the target populations or end-users of finance. More importantly, the institutions also implicitly cross the jurisdiction of several Government departments, which raises political complications that can have a material and detrimental effect on certain components of the sector.

In legislative terms, this is most clearly present by the separate functions of the Department of Finance (*viz*. the Usury Act) and the Department of Trade and Industry (*viz*. the active establishment of finance programs and the encouragement of SMME development). The degree to which institutional bottlenecks are encouraged by this separation of authority and function is unclear, however, and is an issue that is not clearly identified by the World Bank's guidelines.

Also, the Department of Social Development has, in conjunction with the UNDP, presided over a program supporting micro-finance provision for the urban and rural poor for some time now. This obviously crosses into the jurisdiction of the Department of Trade and Industry, and there are in fact accounts of animosity between these departments (see Baumann, 2001 for examples of this). At the very least, this cannot possibly have helped engender an efficient regulatory framework for the industry.

Consequently when discussing the regulatory framework of the MF industry it is important to distinguish between the role of the regulator and the policy framework itself. As far as the regulator is concerned, every indication is that the MFRC conforms to international best practice or, where this is not the case, could soon do so with minimal effort. However, the general policy framework and the conflation of functions (which need not be a problem) between Government departments is more serious, and can only be addressed at an operational level.

CONCLUSION

This paper has shown that South Africa has a sophisticated financial sector that is among the most advanced sectors in the world in terms of its depth. The structure of the sector changed somewhat relative to other upper-middle income countries between 1990 and 1999, where low growth of liquid liabilities and negative growth of quasi-liquid liabilities reflect a changing macro-economic environment, which included the gradual reduction of exchange controls that could have resulted in capital flight (and hence accounted for the decrease in quasi-liquid liabilities). The efficiency of the sector has also suffered somewhat, but, again, the recent changes to macro policy implies that this has been but a necessary and transient adjustment. However, the liquidity of the sector increased significantly over this period, which is unambiguously positive.

Despite the tumultuous times witnessed at the aggregate level in the financial sector, however, the MF industry has grown to an impressive two percent of the total financial sector in terms of total disbursements in 2000. For the industry to have grown to such a substantial size in just ten years is testimony to the tremendous demand for financial services among the poor in South Africa, who were implicitly excluded from participating in the formal sector by virtue of having lower income levels.

The growth of the industry has consequently led to greater access to financial services for the lower and middle categories of the income distribution, which has both positive and negative implications. On the positive side, lower and middle income groups now have access to finance that was previously not available, and so have greater scope to smooth consumption. On the negative side, a lack of awareness among consumers of debt, combined with the rapid growth of the industry that has increased access to finance for the poor, could lead to people becoming over-indebted. In this regard we have seen ominous signs, including:

- Consumption expenditure devoted to housing, food and beverages, and clothing represents a majority proportion of expenditure in all but the two most wealthy income groups, implying that low cashflow levels are sticky, and thus the demand for debt is highly inelastic among lower and middle income groups.
- The ability to repay debt declined for many lower and middle income groups between 1995 and 1999 owing to the combined effects of rising housing costs and low and decreasing cashflow levels, which resulted in substitution shifts away from appreciating assets and towards depreciating assets and consumer goods in the consumption schedule.
- Dependence on indirect income at the bottom end of the income distribution is material but unpredictable, owing to erratic changes in indirect income between 1995 and 1999, which further implies that the informal sector cannot sustainably be used to buffer income levels in the medium-term.

We also saw that while the demand for debt has increased over the 1990s, the sources of that debt have changed significantly. Family loans have become an important and

rising form of credit, followed by furniture and retail stores. This also means that more people are being exposed to hire purchase agreements, where interest rates are often exorbitant. The potential vulnerability of the poor to aggressive lending practises on the part of the MF industry *and* formal retail institutions raises the question of the role of the regulatory framework in SA.

In this regard we separated the discussion between the regulatory institution and the policy framework guiding the state's broader involvement with the industry. With respect to the former, it was evident that South Africa has a 'globally competitive' regulatory institution in the form of the Micro-Finance Regulatory Council (MFRC) in terms of the ideal-type model proposed by the World Bank. However, both the World Bank and the MFRC do not yet have clear guidelines on how to deal with predatory lending practises or consumer protection. This is symptomatic of a global lack of consensus in this regard, which needs decisive research and applied effort.

On the territorial aspects of the support for micro-financiers, the lack of a co-ordinated approach to implementation between the Department of Social Development and the Department of Trade and Industry is worrisome. This is especially so given the fact that the majority of lending in the micro-finance sector is directed towards consumers and not SMMEs, even though the latter are expected to become more important in years to come. On the positive side, however, this form of bottleneck can easily be overcome with appropriate diplomacy and political will. It is imperative that it is overcome, as the micro-finance industry is one of the most important and highly leveraging sectors with respect to playing a meaningful role in poverty alleviation efforts.

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APPENDICES

Appendix 1: Data & Methodology for Evaluating Indebtedness

Data

The data for this study is taken from part two of the October Household Survey (OHS): the Income and Expenditure Survey of households in South Africa (Statistics South Africa, 1995 – hereafter IES95). The IES represented the second part of the OHS, and is consistent with it in every way except in the weighting process. The IES95 surveyed 29,579 households that were randomly selected. For 1999 data, a similar survey is used, based on the IES95 but compiled by Wefa Southern Africa from 1999 income and expenditure data. Wefa used the identical sample of households in the IES95, but then revised the income and expenditure estimates by:

1. Re-weighting the population to reflect mid-1999 population totals;
2. Benchmarking total income earned by households on the 1999 estimate of total income in the national accounts;
3. Benchmarking expenditure on Bureau of Market Research estimates of expenditure by product type (from report no. 261, "Household Expenditure in South Africa by Province, Population Group and Product", 1999).

By comparing the two data sets, we therefore present a comparative static analysis of changes in household indebtedness in South Africa between 1995 and 1999. It is important to note that this period coincides with the process of financial liberalisation initiated in the early 1990s, and thus reflects a critical period in South Africa's history. We would expect that owing to liberalisation, access to debt would have increased over this period, and much of the analysis below attempts to quantify the extent and magnitude of this. It should lastly be noted that because primary expenditure data was collected for 1999, we should pick up the altered behaviour of households with respect to debt owing to the Asian crisis and its positive effects on real interest rates in South Africa. We thus also devote some discussion to this.

Limitations with the Data

The first limitation with the data is that the sections on indebtedness have a considerably smaller sample size than the total IES95 sample. The table below presents these differences.

Sample Size for Various Sections

Section	**Sample Size (*n* households)**
TOTAL SAMPLE SIZE OF IES95	29579 (both urban and rural areas)
DEFINED SAMPLE SIZE FOR INDEBTEDNESS STUDY	4436 (urban areas only)
Indebtedness by Income Category, Race & Gender	4436 (urban areas only)
Debt Schedules	4436 (urban areas only)
Percent Change in Indebtedness and Debt Schedules	4436 (urban areas only)
Cashflow by Income Category, Race & Gender	4436 (urban areas only)
Consumption Schedules	4436 (urban areas only)
Percent Change in Cashflow, Consumption and Finance Schedules	4436 (urban areas only)

Source: Wefa (1999); Own Calculations

A further limitation with the indebtedness data is that it does not reflect existing assets unaccounted for in the figures for total outstanding debt (i.e. the sunk costs associated with a previous investment in fixed assets). Thus we are only able to evaluate total outstanding debt.

Methodology

It is important to realise that analysing household indebtedness necessarily requires an analysis of the household's other income and expenditure priorities. In doing so we are informed by consumption theory, notably the life cycle-permanent income hypothesis. Non-strictly defined, permanent income is comprised of long-term earnings from employment (e.g. wages and salaries), retirement annuities (or other pension funds), and income derived from the possession of capital assets (interest, dividends). The theory states that the amount of a person's permanent income will determine their permanent consumption plans – e.g. the size and quality of the home they purchase, and thus their long-term expenditure on mortgage repayments.

Transitory income on the other hand comprises short-term temporary overtime payments, bonuses and 'windfall' gains from winnings and inheritance, as well as short-term reductions in income arising from temporary unemployment and illness. Transitory consumption, such as additional holidays, clothing, etcetera, will thus depend on any extra income received. However, long-term consumption may also be related to changes in a person's wealth, in particular the value of their house over time. Therefore, the economic significance of the permanent income hypothesis is that the level of consumption may be higher (or lower) in the short-term than that indicated by the level of current disposable income. It is consequently important to treat measures of household cashflow correctly,[13] as we would expect that they would be negative in a static context, but tend towards unity over the course of the life-cycle (assuming to bequest motives or altruism on the part of household members).

However, our analysis must also take into account the prevalence of poverty in South Africa, which when posed within consumption theory, must reflect the behaviour of households that do not possess long-term assets (e.g. housing). In this regard, we are informed by the literature on poverty (see Deaton, 1997), which has shown that poor households often rely on the informal sector, making the significance of transitory income great indeed. Also, poor households ordinarily incur debt to smooth consumption first before using it as a basis for asset accumulation. Add to this the known exclusion of poor individuals from the formal financial sector, which implies that they resort to micro lenders that are known to lend money at greater interest rates, and we could expect that poorer households would at least *not* have low indebtedness levels. Therefore, a certain amount of theoretical ambiguity exists in the extent of indebtedness among poor households.

Our quantitative tasks therefore include analysing measures of both indebtedness and cashflow. For indebtedness, we use the following variables:

[13] Measures of household cashflow would include total income to total expenditure for example, or disposable income to total expenditure.

1. Total outstanding debt as a percentage of total income;
2. Total outstanding debt as a percentage of total income minus tax (i.e. disposable income);
3. Total outstanding debt as a percentage of regular income minus tax (i.e. regular disposable income);
4. Total outstanding debt as a percentage of expenditure.

It should be noted that we use two measures of disposable income in this section: total income minus tax, and total regular income minus tax (the latter would be the more theoretically appropriate measure of course). Regular income is a variable taken directly from the variable "Direct Income" in the Income and Expenditure Survey (see Statistics South Africa, 1995). It is derived from the total income variable, which is separated into direct income and indirect income. Direct income is defined as salaries and wages (including bonuses, commissions for Directors fees, and part-time work), net profit from business or professional practices, net income from letting of fixed property, royalties, interest received, dividends received, regular receipts from pensions, disability funds, etc, alimony, and regular allowances received from family living elsewhere. Indirect (or transitory) income is defined as net income from hobbies, income derived from the sale of vehicles or property, payments received from boarders and other members of the household, the value of goods and services received by virtue of your occupation (including housing subsidies, transport subsidies, pension/provident fund contributions, etc), gratuities, and all other sources of transitory income.

Our variables for household cashflow reflect the extent to which households are able to match annual income with annual expenditure. We proxy cashflow using five additional variables:

1. Total income as a percentage of total expenditure;
2. Total income minus tax (i.e. disposable income) as a percentage of total expenditure;
3. Regular income as a percentage of total expenditure;
4. Regular (or direct) disposable income (i.e. regular income minus tax) as a percentage of total expenditure;
5. Indirect (or transitory) income as a percentage of total expenditure.

The combination of indebtedness and cashflow therefore allows us to create a more nuanced overview of each household's expenditure obligations and financial constraints. The covariates of income group, race of household head and gender of household head will then further disaggregate the analysis of indebtedness and cashflow.

We then evaluate changes associated with indebtedness and cashflow between 1995 and 1999.

Finally, we analyse the proportion of household expenditure devoted to consumer goods, which we term consumption schedules. In addition, we also analyse the proportion of total outstanding debt devoted to various sub-categories of that debt; that is, we evaluate the proportion of total outstanding debt owed on a bond, car,

furniture, overdraft and credit cards, retail, and family loans, which we term debt schedules.

By evaluating these sections individually and collectively, we thus provide a preliminary overview of the incidence of household indebtedness in South Africa, and are also able to extend the analysis further by discussing the micro and macro implications associated with this sector.

Appendix 2: Distinguishing Characteristics of Different Types of MFIs

Type of MFI	Legal Form of Organisation	Basis for Establishment	Ownership	Governance	Main Source of Funds for Operations & Loans	Market Niche
CATEGORY A: MFIs USING OTHER PEOPLES' MONEY						
Type 1 Non Profit NGO	Non profit NGO	Social Services Law, Trustees' Ordinance	Foreign & local donors through a Trust	Board of Trustees	Grants and donations	Specifically-defined urban/rural low inc. area
Type 2 Non Profit NGO with limited deposit-taking	Non profit NGO	Social Services Law, Trustees' Ordinance + Registration with Central NGO Body	Foreign & local donors through a trust	Board of Trustees	Grants and donations, limited deposit-taking	Specifically-defined urban/rural low income area
Type 3 NGO transformed into incorporated MFI	Non profit limited liability stock or non-stock company	Companies' Registration Law	Individual persons and / or institutions as members or s/holders	Board of Directors	Grants and donations, limited deposit-taking, concessional / commercial borrowings	Specifically-defined urban/rural low income area
CATEGORY B: MFIs USING MEMBERS' MONEY						
Type 4-A Credit union, savings & credit co-op society	Closed common bond association	Law on cooperative societies or savings & credit associations	One-man one-vote membership limited to natural persons sharing strictly defined interests (village or employment).	Board of Directors	Members' share capital contributions and savings deposits	Specifically-defined urban/rural community or place of employment
Type 4-B Credit union, savings & credit co-op society	Open common bond association	Law on cooperative societies or savings & credit associations	One-man one-vote membership limited to natural persons sharing broadly defined interests (trade, craft, large geographical area).	Board of Directors	Members' share capital contributions and savings deposits	Broadly defined urban or rural communities or employment sectors
CATEGORY C: MFIs USING THE PUBLIC'S MONEY						
Type 5 Specialised bank, deposit-taking institution, or finance company	Limited liability stock company	Companies registration law; Limited license issued by Bank Regulatory Authority	Individual persons and / or institutions as members of stockholders	Board of Directors	Savings deposits, wholesale funds and commercial borrowings	Regional or national market area
Type 6 Licensed mutual ownership bank	Limited liability stock or non-stock company	Companies registration law; Full license issued by Bank Regulatory Authority	Individual persons and / or institutions as members of stockholders	Board of Directors	Retail deposits from the general public, wholesale funds and commercial borrowing	Regional or national market area
Type 7 Licensed equity bank						

Source: WB, 1998, 22

Appendix 3: Evaluating Financial Risks among MFIs

The financial risks to be managed in MFIs can be evaluated according to a number of analytical formats. The traditional CAMEL methodology (capital, asset quality, management quality, earnings and liquidity) for evaluating risk position of financial institutions was created as a supervisory tool, rather than as a management tool. A major focus on the CAMEL ratios is measurement of acceptable levels of solvency of an institution and the safety of deposits. On the other hand, the system of monitoring and evaluation indicators for credit unions known as PEARLS (protection, earnings, asset quality, rates of return and cost, liquidity and signs of growth) was developed first as a management tool and later became an effective supervisory mechanism (v. Greuning et al, 1998, 21). PEARLS results in objective measurements, whereas the CAMEL approach involves some degree of subjective judgement by analysts or examiners particularly on management quality and capability.

The main thrust of the World Bank's paper is to promote a standard application of risk management principles which would be useful to an institution's management and its governing board or trustees, shareholders or members, external auditors, the regulatory authorities, institutional creditors, donors and the general public. It emphasises that the responsibility for risk management rests principally on voluntary regulation through internal governance, rather than on external supervision by regulatory authorities. Risk-based financial regulation should identify and specify the following aspects:

- The particular risks that are most relevant to MFIs
- For each relevant risk, the key indicators that are most important for risk management in MFI operations
- The ranges of values and their trends over time which would be useful to directors and managers responsible for internal governance in monitoring the financial health of MFIs that they manage, and
- The ranges of values and their trends over time which would be invaluable in establishing regulatory guidelines to be used by external supervisors who have the mandate to regulate MFIs under their jurisdiction.

The tables below summarise the categories of risk and range of values of financial risk indicators for the three broad classes of MFIs discussed earlier in the paper (namely MFIs which depend on other peoples money, those that depend on members money and those that depend on the public's money). The table highlights:

- The observed value ranges of selected financial risk indicators
- Recommended value ranges suitable for consideration in internal governance and, where appropriate or warranted
- Suggested threshold values with respect to external regulation for each of the three categories of MFIs.

The recommended and threshold values are neither absolute nor arbitrary, and it is emphasised that practical applications should take into account specific country conditions.

Key Risk Management Factors and Indicators

Risk Management Factors and Indicators	Category A: MFIs Using Other Peoples' Money Non-Profit NGOs, NGOs and MFIs with Limited Deposit Taking			Category B: MFIs Using Members' Money Credit Unions, Savings & Credit Unions; Savings & Credit Cooperatives			Category C: MFIs Using the Public's Money Specialised / Limited Equity Banks; Licensed Mutual-Ownership Banks; Non-Bank Financial Institutions		
	Range of Observed Values	Suggested Thresholds for Internal Governance	Suggested Guidelines for External Self-Regulatory Body	Range of Observed values	Suggested Thresholds for Internal Governance	Suggested Guidelines for External Regulation	Range of Observed Values	Suggested Thresholds for Internal Governance	Suggested Guidelines for External Regulation
1. BALANCE SHEET STRUCTURE									
Earning assets:									
Loans as % of ave. assets	55-75%	65-70%	65-70%	60-70%	70-80%	70-80%	65-80%	70-80%	None required
Non-performing loans as % of total loan portfolio	2-10%	< 5%	5-10%	7-10%	< 5%	<= 5%	1.5-6.5%	< 5%	5-10%
Non-earning assets:									
Fixed assets as % capital	Not available	<= 5%	None required	20-25%	<= 5%	5-10%	Not available	<= 20%	<= 25%
Funding liabilities as % of total capital:									
Wholesale deposits & borrowings	Not available	<= 100%	<= 100%	1-3%	0%	0%	Not available	<= 150%	150%
Retail public or members' deposits	Not available	<= 100%	<= 100%	145-180%	>= 250%	250%	Not available	<= 300%	300%
2. CAPITAL ADEQUACY									
Risk-weighted assets : capital	1.5-3 X	<= 3 X	3 X	2.5-3.5 X	<= 4 X	3-5 X	5-20 X	<= 5-6.5 X	6-8 X
Total liabilities : capital	Not available	Not available	2 X	2-3 X	<= 3.5 X	3.5 X	Not available	<= 8 X	< 8 X
% of current earnings retained	Not available	Build up of capital	Build up capital	Not available	Build up capital	Build up capital	Not available	Build up reserves	Build up reserves
Institutional capital / required minimum capital - %	Not available	>= 100%	> 100%	Not available	Not applicable	Not applicable	Not available	> 100%	>= 100%
3. LIQUIDITY RISK									
10 Largest depositors / funders as % of total deposits / funds	Not available	<= 25%	None required	Not applicable	Not applicable	Not applicable	Not available	<= 10%	None required
Volatile funds as % of total deposits / borrowings	Not available	0	None required	0%	0%	0%	Not available	<= 10%	None required
Cash + deposits +short-term investments as % of deposits / borrowings	Not available	25%	25%	10%	10-15%	20%	Not available	25%	20%

Source: WB, 1998, 22

Key Risk Management Factors and Indicators (Continued)

Risk Management Factors and Indicators	Category A: MFIs Using Other Peoples' Money Non-Profit NGOs, NGOs and MFIs with Limited Deposit Taking			Category B: MFIs Using Members' Money Credit Unions, Savings & Credit Unions; Savings & Credit Cooperatives			Category C: MFIs Using the Public's Money Specialised / Limited Equity Banks; Licensed Mutual-Ownership Banks; Non-Bank Financial Institutions		
	Range of Observed Values	Suggested Thresholds for Internal Governance	Suggested Guidelines for External Self-Regulatory Body	Range of Observed values	Suggested Thresholds for Internal Governance	Suggested Guidelines for External Regulation	Range of Observed Values	Suggested Thresholds for Internal Governance	Suggested Guidelines for External Regulation
4. INCOME STATEMENT STRUCTURE									
Effective yield on loan portfolio	30-45%	>= market	None required	19-25%	>= market	None required	28-45%	>= market	None required
Net interest margin as % of average assets	10-25%	>= 18%	None required	10-15%	>= 15%	None required	12-20%	>= 12%	None required
Unadjusted return on average assets	3-5%	>= 3%	None required	2-4%	>= 3%	None required	1-7%	>= 2%	None required
Unadjusted return on average equity	9-18%	12-16%	None required	6-11%	>= 12%	None required	4-32%	>= 12%	None required
Operational self-sufficiency - %	110-140%	> 115%	>= 115%	118-147%	>= 115%	None required	107-148%	>= 115%	None required
Financial self-sufficiency - %	95-125%	> 100%	>= 100%	103-127%	>= 115%	None required	103-137%	>=110%	None required
Administrative expense as % of average assets	15-20%	< 15%	None required	7-15%	< 12%	None required	4-15%	<= 10%	None required
5. CREDIT RISK									
Delinquency as % of loans > 90 days overdue (PAR)	2-6%	<= 5%	5%	7-10%	< 5%	<= 5%	1-6.5%	< 5%	5-10%
Loan loss reserve as % of total loan portfolio	0.5-2%	>= 2%	2-5%	1-3%	> 3%	>= 3%	0.75-2.5%	>= 5%	>= 5%
Loan loss reserve as % of portfolio at risk	Not available	100%	100%	100%	100%	100%	Not available	100%	100%
Portfolio concentration:									
20 largest borrowers as % of loan portfolio	Not available	Minimise	None required	Not available	Minimise	None required	Not available	Minimise	<= 25%
Loans to SODRI as % of institutional capital	Not available	< 5%	<= 5%	Not available	< 5%	<= 5%	Not available	<= Equity of borrower	<= 5%
Sectoral and geographical concentration	Not available	Minimise	None required	Not available	Minimise	None required	Not available	Minimise	<= 10%

Source: WB, 1998, 23