4 Microfinance

4.1 Introduction to microfinance

4.1.1 Evolution of microfinance

Microfinance has been a success story over past decades. Nevertheless, core elements of today's microfinance framework have been used for centuries. In Ireland, the author Dean Jonathan Swift initiated entities called "loan funds". These funds accommodated microcredits to entrepreneurs starting in 1720. About one hundred years later, the government established a statutory basis resulting in a boom of "loan funds".[80] A second example is the German "Sparkassen" and cooperative banking system. The first "Sparkasse" was established 1778 in Hamburg. In addition to saving deposits, services included loans for businesses and farmers. In 1846, Friedrich Wilhelm Raiffeisen and Hermann Schulze-Delitzsch founded cooperatives focusing on saving and lending deposits for small businesses and farmers.[81] All three mentioned German banking institutions are major retail banks today: "Sparkassen", "Raiffeisen" and "Volksbanken".

The roots of today's microfinance in emerging markets lie in the mid 1970s.[82] Mohammed Yunus started in 1976 during a famine period to lend money to people of his community. Seven years later, Grameen Bank was founded and Bangladesh became a textbook example for microfinance. During the same period, ACCION in Brazil and Bank Rakyat in Indonesia developed similar microcredit business models. Failed subsidy programmes are one of the major reasons for the popularity of these and other microfinance institutions in emerging markets. Local governments set up rural development programmes financed by development finance institutions (DFIs) such as the World Bank, its private sector affiliate, the International Finance Corporation (IFC) or the German Kreditanstalt für Wiederaufbau (KfW). However, several factors led to a failure of these subsidised development aid programmes.[83] Firstly, local banks were not able to work profitably with the regulated interest

[80] HOLLIS & SWEETMAN (1997, 2003) provide a more detailed insight into Irish "loan funds".
[81] SEIBEL (2003, 2005) reveals the roots of microfinance in Germany.
[82] VON PISCHKE (2008), p. 1.
[83] FELDER-KOZU (2008), p. 26.

P. M. Becker, *Investing in Microfinance*, DOI 10.1007/978-3-8349-8926-0_4

rates, because operating costs were too high in many regions. Secondly, many debtors considered the loans as donors of their government and hence did neither pay interest rates nor the credit amount at maturity. Thirdly, the rationing of credit programmes fostered corruption in bank lending. Hence, locally originated microfinance proved to be the better solution. It has become one of the rare financial and sustainable success stories of today's emerging and developing markets[84] financial system.

4.1.2 Definitions and categories

Microfinance institutions (MFIs) provide various products for mainly low-income clients mostly in emerging and developing markets.[85] Among those are credits, savings deposits, insurances and pension products.

The main product of microfinance is the microcredit concept. A clear definition and segmentation of the loan and credit segment is crucial. In fact, three main credit types exist in emerging markets (see Figure 4-1). Firstly, consumer credits are used to finance a non-durable good and hence have to be financed by the clients' personal income. Secondly, entrepreneurs can draw on a credit to establish a business or moderately expand an existing one. This kind of credit is referred to as microcredits. The interest payment is generated out of the business' cash flow. Due to the entrepreneurial concept of microcredit, generally no or only insufficient collateralization is possible. Thirdly, corporate credits with adequate collateral exist. This is a common pattern of (small) business lending. As a consequence, the distinction of income-financed consumer credits and cash-flow-financed microcredits is a critical differentiation factor in microfinance.

[84] In the following chapters, the term emerging market is used both for emerging and developing markets. Developing countries are usually nations with a low level of material being such as Honduras, Benin or Bangladesh. Countries considered to be in a transitional phase to developed markets are called emerging markets. Brazil, China, South Africa and Russia are examples for emerging countries.

[85] Common definitions for microfinance can be found on www.microrate.org, www.themix.org or www.responsAbility.org.

Consumer Credit	Microcredit	Small business lending
▪ Credit for non-durable good or consumer durable ▪ Accommodation of a loan shall depend on income	▪ Credit for entrepreneur to establish a business or expand an existing business moderately ▪ Interest payment is generated out of business (→ cash flow calculation necessary) ▪ No (or insufficient) collateralization	▪ Corporate credit ▪ Collateralization

Figure 4-1: Segmentation of credit categories

Microcredits are business loans and by definition not consumer loans. These loans shall support and initiate business concepts, which finance their capital costs out of the business. The clear separation from income-dependent consumer financing enables high repayment rates. However, interest rates are relatively high compared to developed country rates. Firstly, credits are in local currency and therefore refer to local rates. Secondly, clients are widespread and the loan amount is comparably low. Thus, operating costs are on a very high level. Nevertheless, microfinance institutions offer rates which are far below money lender rates.[86]

Savings deposits are a further product and gain importance for microfinance institutions.[87] On the one hand, it is a refinancing option especially in situations when local currency credit markets are limited. On the other hand, it enables MFIs to increase the commitment of their creditors, because these often have savings deposits as well. However, due to regulatory issues MFIs cannot accept deposits in all countries and in general a banking licence is a prerequisite. Also clients can profit from savings deposits, because they get the opportunity to deposit money and get a small interest on the amount. From a western perspective this argument may sound

[86] ROSENBERG ET. AL (2009), p. 20.
[87] MIX (2008), p. 28.

unfamiliar, but in several countries clients would otherwise have to pay a fee for a deposit instead of receiving interest.[88] In conclusion, MFIs as well as clients can profit from savings accounts.

Further products are offered in the segment of microinsurance and -pension.[89] The product range is equally to common insurance and pension products, but contract sizes are very low and operational costs high. Overall, this market is still in an early stage of development. However, in some countries such as Bangladesh with Grameen Bank it is already emerging rapidly. As a result, even major players such as Allianz, Munich Re and Swiss Re have entered this high growth potential market.

4.2 Microfinance market from an investment perspective

4.2.1 Market overview

The microfinance market is structured horizontally along the financial value chain (see Figure 4-2). MFIs grant entrepreneurs a loan with a fixed interest rate in local currency. In the strict sense, the debtor uses the loan to finance an entrepreneurial business and serves the interest payments out of the business' cash flows. In some cases, debtors also have a savings deposit at a MFI with a small or sometimes even no accruing interest. This is one of the main refinancing options for MFIs. Further refinancing includes debt obligations from microfinance investment vehicles (MIVs) or direct investor, local credit markets and equity investments.

[88] CGAP (2007), p. 1.
[89] CHURCHILL (2006), p. 13.

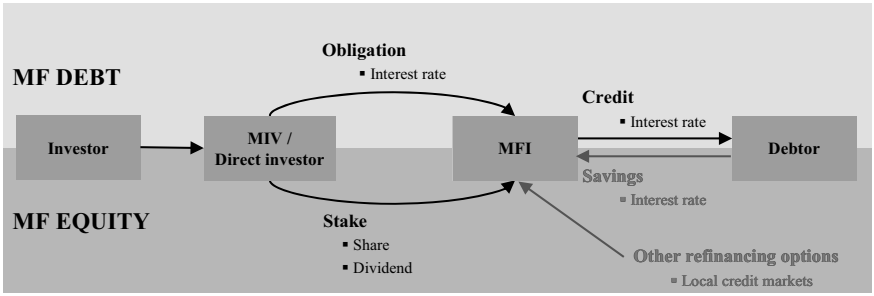

Figure 4-2: Investment perspective on microfinance market

A broad spectrum of service providers complements the microfinance market. Besides the above mentioned market participants of the direct value chain several segments of service providers emerged (see Figure 4-3). The service providers are segmented in three categories. Firstly, DFIs offer technical assistance as well as subsidized funding. Secondly, service providers in a broader sense such as specified data providers, specialised accountants and lawyers as well as FX hedging specialists serve the niche market. Finally, rating agencies complement the microfinance market. These companies either focus on microfinance such as MicroRate or agencies extended their business to microfinance such as Fitch.

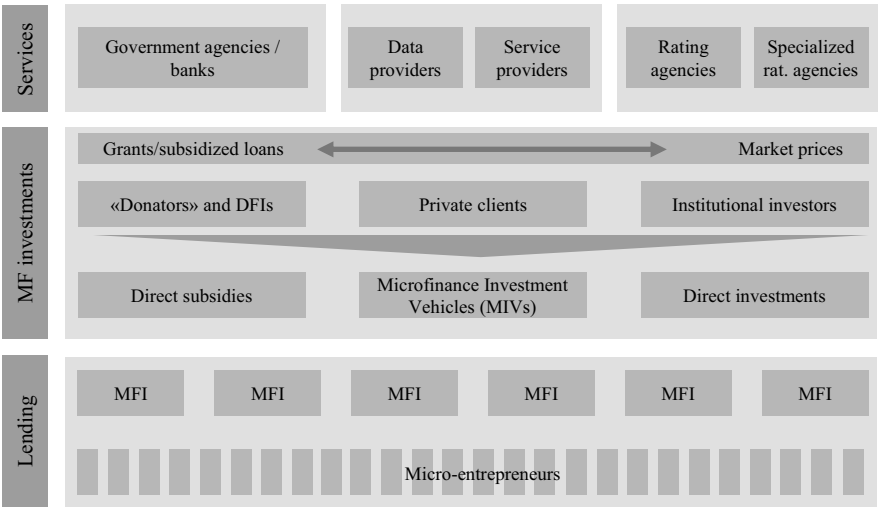

Figure 4-3: Overview of microfinance market

The microfinance market exhibits a mature market structure. However, the market is young and various segments as well as market participants are newly developed or incorporated. Nevertheless, the market is innovative and able to deal with nearly any kind of issue. But in some cases the processes are not defined strictly and mutually agreed procedures are not arranged yet.[90]

4.2.2 Microfinance users

The typical microfinance user is a debtor and client of a MFI.[91] Generally, the person is to some extent a micro-entrepreneur working as a street vendor, farmer, fisherman, salesman, or service provider. Microfinance clients are also often described according to their poverty level. However, the idea of microfinance is not donating for the poor. In fact, it is enabling and supporting the entrepreneurial spirit

[90] One example is the provisioning policy of MIVs during 2009. Whereas some funds made provisions for a debt obligation to a specific MFI, other funds with the same exposure did not. However, the industry leaders will figure out a common provisioning procedure.

[91] In this and the following chapters, the term microfinance is used in a broader context even though the focus is often on the microcredit segment.

of poor people. Some clients are truly entrepreneurs. They create and run a business, while others became entrepreneurs by necessity as the formal sector is less marked than in developed countries.

The average loan size differs regionally: in Asia approximately USD 200, in Africa and Middle East about USD 300, in Latin America around USD 800 and in Central and Eastern Europe around USD 2000 (see Figure 4-4).[92] The credits are in local currency, thus the interest rate refers to local currency rates and operating costs. The credit period is in the vast majority between 12 and 36 months, averaging around 18 months.[93]

	Africa	Asia	Eastern Europe & Central Asia	Latin America & the Caribbean	Middle East & Northern Africa
% of women	57.2	93.8	43.1	59.6	65.4
Average loan (in USD)	308	166	2174	780	317
Average deposit (in USD)	98	56	1855	466	26

Figure 4-4: Some key figures of microfinance users[94]

The gender is a further important criterion in the microfinance segment. Overall, roughly 60% of the credits are allowed to women.[95] Furthermore, in some areas in Asia and Africa group lending is preferred as it generates social control. Another rarely stated reason for the group lending phenomenon is the loan amount. In Eastern Europe loans are on average roughly ten times higher than in Asia and therefore operating costs are assumed to be lower, which makes individual lending more

[92] MIX (2009), p. 48. A normalization of the average loan size by a factor such as GDP per capita would bring the outstanding amount in Eastern Europe & Central Asia closer to the average.
[93] MIX (2008) and information from www.themix.org
[94] According to MIX (2009).
[95] MIX (2009), p. 48.

profitable than for example in Asia.[96] This might be another factor allowing individual lending, besides the often stated cultural and social differences.[97]

4.2.3 Microfinance institutions

MFIs are organizations offering microcredits and in some cases savings accounts. Hence, the balance sheet assets are credits allowed to micro-entrepreneurs. The liability structure depends on the MFI's refinancing strategy, corporate status and regulatory issues (see Figure 4-5).[98] Adequate financing sources are equity, international capital markets, local capital markets, deposit accounts and subsidies such as supranational funding or even donations.

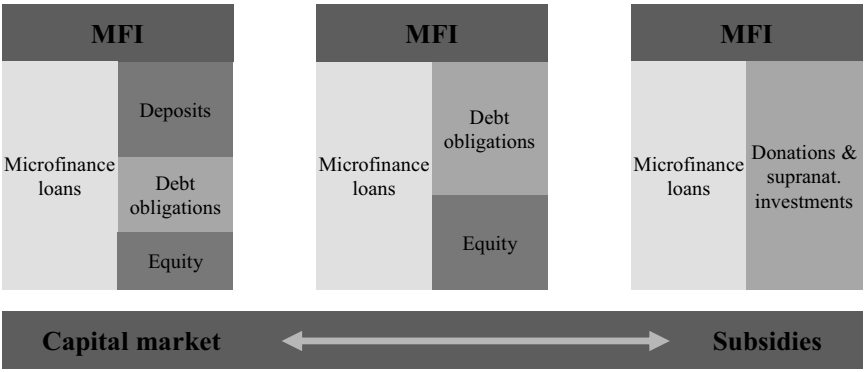

Figure 4-5: Lending and funding strategies of MFIs

The refinancing strategy of MFIs is dependent on their development stage. Mature and well-known MFIs are clustered as Tier 1. These institutions are in the majority of the cases banks, regulated by a governmental authority and also covered by rat-

[96] Again, the local compensation levels have to be taken into account. These are higher in most countries of Eastern Europe compared to other emerging markets.

[97] The argument of is supported by data of the MBB 19 (MIX 2009). The PAR30 for solidarity lending (1.5%) was in 2008 markedly below individual lending (3.4%). However, the profit margin for these solidarity loans were slightly negative (-0.7%), whereas for individual loans a profit of 7.3% arose. The different average loan size of USD 111 for group lending as opposed to USD 1404 for individual lending might give an explanation.

[98] DIECKMANN (2007), p. 6.

ing agencies. Tier 2 MFIs are smaller and not all processes are perfectly structured yet. However, these institutes are candidates for a conversion into banks. The third group and majority of MFIs are NGOs or start-ups. These organizations are mostly unprofitable and often follow exclusively social objectives. As a result, MFIs can be clustered into a pyramid scheme (see Figure 4-6) with only a few mature institutions. Nevertheless, these Tier 1 and 2 MFIs grant about 90% of the loan sum.[99]

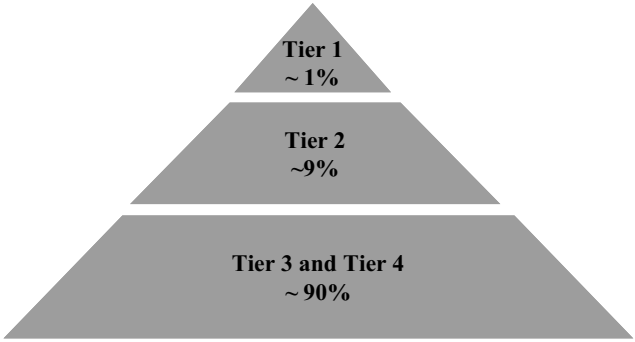

Figure 4-6: Segmentation of MFIs

Microfinance investment vehicles (MIVs), local banks, development agencies, donators and international credit markets facilitate the refinancing of MFIs. The mature MFIs have access to local capital markets as well as investment funds to leverage their equity. Furthermore, these institutions generally have a banking license and consequently accept deposits as further refinancing facility. For these reasons, mature MFIs are able to lever their equity up to seven times.[100] The average debt to equity multiple of Tier 1 and 2 MFIs is about three.[101] However, the majority of MFIs operates less professional and refinances the microcredits with loans from development agencies or donations.

[99] MIX (2009), p. 47.
[100] HUBER (2009).
[101] MIX (2009), p. 47.

The outstanding loan portfolio of about 1000 major MFIs was about USD 40 billion according to TheMix database.[102] Indeed, these data are not exclusively based on microcredits, but also contain consumer lending and small business lending. An amount of about USD 30 billion seems more adequate according to estimates of various microfinance experts from MicroRate or responsAbility.[103] These credits are funded by savings deposits, donations, paid in capital and borrowings. [104]

MFIs require local currency refinancing with matching maturities to their credits. But international investors such as investment funds or even governmental investments prefer hard currency debt obligations. Accordingly, the MFI or the debtor would have to dare the currency risk. In case of strong currency devaluation, the risk taker could default.[105] Thus, MFI and investor assign a reliable counterparty for foreign exchange risks. In some countries, the international capital market offers derivative instruments such as non-deliverable forwards. In the vast majority of cases, currency hedging can only be provided by local banks that take the risk for high premiums. Overall, the foreign exchange risk for international investors such as development agencies and MIVs has gained importance over the last years. [106]

The refinancing structure of MFIs is dominated by local sources. Savings accounts of microfinance clients make up on average 45% of the balance sheet. Additionally, roughly 30% are refinanced with domestic credit lines or equity investments. Hence, less than 25% are financed by foreign investors (see Figure 4-7). However, this still amounts to about USD 7.5 billion financed from foreign sources such as MIVs and direct investments.

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[102] See figure prominently displayed at www.mixmarket.com.
[103] Interviews with Damian von Stauffenberg and Patrik Huber.
[104] Estimate considering MIX (2008), p. 26 and current data available on www.themix.org indicating a gross loan portfolio of roughly USD 40 billion. However, these figures do not exclusively focus on microcredits, but also contain consumer lending and some small business lending. Hence a discount factor of 25% adjusts for the data inconsistency. This discount factor was intensively discussed was experts from MicroRate and responsAbility.
[105] In some central Asian countries this "hedging" approach was implemented and consequently the client was opposed to the currency risk. As a result, the market was hit hard during the financial crisis. From now on, a better hedging approach is considered.
[106] HUBER (2009).

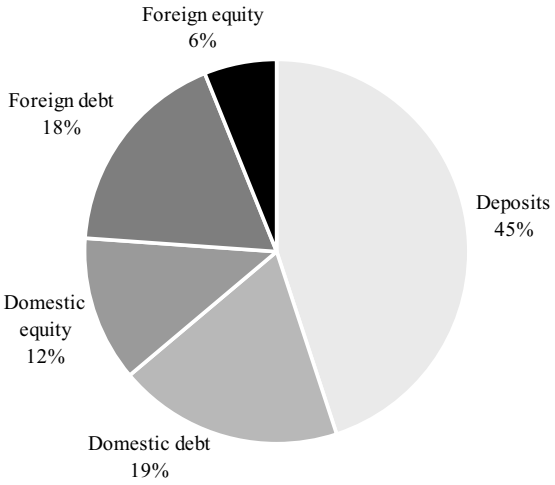

Figure 4-7: Refinancing structure of MFIs[107]

The funding structure of MFIs differs regionally. Interestingly, the refinancing gap with respect to deposits is highest in Asia (see Figure 4-8). In the other three main regions, roughly 50% of the loans are funded by deposits. However, the data quality regarding microfinance is rather poor.[108] As a result, the tapping of various different refinancing sources especially client deposits requires a sound asset liability management for MFIs and is critical to assess and manage financial risks.[109]

[107] MCKINSEY (2006), DIECKMANN (2007) and discussed with microfinance experts of MicroRate and responsAbility.
[108] Data ascertainment is difficult for several reasons such as definition of microcredit, data processing technology, and exchange rate fluctuation.
[109] For a detailed insight in asset liability management of MFIs refer to CGAP (2009c).

	Africa	Asia	Eastern Europe & Central Asia	Latin America & the Caribbean	Middle East & Northern Africa
Offices (in '000)	4	23	3	9	2
Employees (in '000)	35	200	39	77	16
Borrowers (in '000)	5'183	43'294	2'387	11'374	2'244
Depositors (in '000)	8'036	11'769	3'891	9'816	9
Loan portfolio (in USD mn)	2'419	6'744	7'776	13'820	1'040
Deposits (in USD mn)	1'948	1'163	3'296	8'637	55

Figure 4-8: The scale of global microfinance institutions[110]

4.2.4 Microfinance investment vehicles

Microfinance investment vehicles are funds or structured products that provide debt obligations to or take equity stakes in MFIs. In general, institutional and private investors have three channels to participate in the microfinance market. Firstly, they can invest directly in business projects of micro-entrepreneurs. Secondly, direct investments can be allocated to MFIs that accommodate a broad range of micro-credits with a regional focus. Finally, investors can place money with MIVs that allocate their portfolio to a diverse range of MFIs.

Direct investments in a single project or a regionally based MFI may generate a high social impact, but also increase risks. Arguments such as regional diversification, selection skills and access to the market are a clear advice to fund investments. However, philantrophic investors and donators prefer the direct contact to their projects.

Microfinance investment vehicles are an increasingly important funding instrument of MFIs. In 2007, MIVs accounted for about USD 4 billion of credit lines and equity investments.[111] In 2009, the boom in microfinance investments slowed down.

[110] According to MIX (2008), p. 26. These data exclude Bank Rakyat Indonesia (BRI) with an outstanding volume of microfinance credits of about USD 6 billion.
[111] VON STAUFFENBERG (2008), p. 15.

However, MIVs funding capacity increased also during the credit crises by about 30% per year. Especially governmental vehicles and private investors ensured money inflows. For this reason, MIVS currently have a refinancing capacity of approximately USD 6.5 billion.[112]

Microfinance investment vehicles have different approaches. Firstly, pure microfinance debt obligation funds exist. They often offer a return of Libor plus 200 basis points and charge around 2% management fees. The debt obligations have a maturity of 12 to 36 months and are widely diversified across regions. Secondly, some microfinance equity funds invest directly in equity stages of MFIs. These funds are set up like private equity funds with similar return expectations and fee structures. Thirdly, there are funds combining debt obligations with some equity exposure. Finally, structured vehicles have been set up. These credit loan obligations (CLOs) are less regulated, have a fixed maturity and offer no liquidity. From an investment perspective, these structures are not advisable as the whole investment is placed in one maturity and time horizon. However, long maturities of the debt obligations offer a premium.

A further distinction criterion of microfinance investment vehicles is the foreign exchange approach. Almost every MIV purely invests in hard currency debt obligation, despite the high costs for foreign exchange hedging. However, as investors get more and more experienced this might change in the future and local currency investments will increase.

Some MIVs do not allocate purely to microfinance investments. There are two major reasons for this. Firstly, raised capital cannot be invested at short notice. In the past, MFIs have often aligned the lending policy to the availability of refinancing opportunities. The allowance of credits takes a while and currently the credit crisis also slowed down the need for microcredits. Secondly, cash or liquid assets enhance liquidity options of the fund. In case of withdrawals, the fund cannot liquidate debt obligations as no secondary market exists. A strict asset liability management is crucial. However, interest payments and the short maturity of the debt obligations (on average about 18 months) lead to a constant cash flow. But

[112] CGAP (2009b).

reinvestments have to be arranged well in advance in the illiquid microfinance market environment. In conclusion, cash management is a major challenge for MIVs and hence some invest a smaller portion in other more liquid investments.

The market for microfinance investments shows strong and sustained growth. Every other month, a new investment vehicle is launched. In most cases, the vehicles are managed by one of the three big market players BlueOrchard, responsAbility or Symbiotics and only distributed by a new market member. Besides, the debt obligations market for MFIs is a person's business. For example, a general market platform for debt obligations does not exist and access to brokers is limited. Hence, market entry is complicated and only a few companies have the skills and contacts to act successfully including the above mentioned as well as Developing World Markets and Triodos. Overall, about 100 MIVs with investment strategies ranging from pure debt to equity investment exist.[113] The most prominent ones are listed below (see Figure 4-9).

[113] CGAP (2009b) and www.mixmarket.com.

Fund name	Fund manager	Assets allocated to MF, USD mn	Total fund assets, in USD mn	Inception year	Type of fund	Data as of
EFSE (Eur. Fund for Southeast E.)	Oppenheim / KfW	622.6	946.4	2005	Fund - institutionals	Sep 09
Dexia Microcredit Fund	BlueOrchard	384.4	541.7	1998	Fund; pure debt	Dez 09
ResponsAbility Global MF Fund	ResponsAbility	342.2	477.2	2003	Fund - priv.; up tp 10% equity	Jan 10
ResponsAbility MF Leaders Fund	ResponsAbility	133.5	159.7	2006	Fund - inst.; up to 25% equity	Jan 10
ResponsAbility Mikrofinanz-Fonds	ResponsAbility	102.9	143.1	2006	Fund - inst.; pure debt	Jan 10
Dual Return Fund - Vision MF	Symbiotics	94.5	118.2	2006	Fund - private and inst.	Jan 10
Triodos Microfinance Fund	Triodos	30.8	55.0	2009	Fund - private and inst.	Dez 09
Wallberg Global MF	Symbiotics	28.9	39.4	2008	Fund - private and inst.	Dez 09
Enabling Microfinance	Symbiotics	26.0	35.1	2008	Fund - private and inst.	Jan 10
DWM	DWM	7.4	8.5	2009	Fund; up to 50% local FX	Dez 09
SNS Institutional Fund	Triple Jump	195.0	220.0	2007	Closed mutual fund	Sep 08
BlueOrchard Loans for Devel. 2	BlueOrchard	110.0	110.0	2007	CLO - 5 years	Jan 10
BlueOrchard Loans for Devel. 1	BlueOrchard	96.6	99.1	2006	CLO - 5 years	Jan 10
db Microfinance Invest No. 1	Deutsche Bank	87.0	87.0	2004	CLO - 7 years	Jan 10
BlueOrchard MF Securities 1	BlueOrchard	74.0	79.3	2004	CDO - 7 years	Jan 10
ASN Novib Fund	Triple Jump	49.0	84.0	1998	Investment fund	Dez 07
Microfinance Growth Facility	BlueOrchard			2010	USA, target USD 250 mn	Jan 10
Microfinance Enhancement Facility	BO, rA, Cyrano	87.5	122.1	2009	IFC/KfW, target USD 150 mn	Nov 09
Oikocredit		304.9	614.5	1975	Inv. cooperative	Dez 07
ProCredit Holding		296.8			Holding company of MFIs	Dez 08

Figure 4-9: Overview of prominent MIVs[114]

The DFIs and government authorities have implemented two additional MIVs in the aftermaths of the credit crisis. The IFC (the Worldbanks' private investment arm International Finance Corporation) and the KfW (the German Kreditanstalt für Wiederaufbau) set up the microfinance growth facility, which initially had a target size of USD 500 million. However, the refinancing demand of MFIs was vastly overestimated and the target size will be reduced. The US government introduced the so-called "Obama fund", a microfinance growth facility targeting South American funding needs with up to USD 250 million over the next years. These two vehicles will be major market players over the next years and clearly express the motivation of governments to support the microfinance sector.

4.2.5 Microfinance service providers

A wide range of service providers emerges in the environment of the microfinance sector. As mentioned above, these service providers can be categorized in govern-

[114] Data as documented in fund fact sheets or company prospects.

mental services, a wide range of corporate service providers and rating agencies (see Figure 4-3).

Supranational and governmental organization offer technical assistance in the microfinance sector. This includes diagnostics, development of new products and services, implementation of balanced scorecard methods, design of market research strategies, social impact studies, strategic business planning as well as audits.

The corporate service providers are often niche players and have at least a special unit covering microfinance. In portfolio management, accountants and lawyers play a specific role. It starts with the launch of a fund, the valuation, the proof of contracts and many more issues. In Europe, Switzerland and Luxembourg have become the microfinance platforms and the major accounting companies offer specific microfinance services as well as lawyers. Furthermore, brokerage platforms are needed even in microfinance. The major asset managers also cover this at least partially (e.g. Symbiotics, responsAbility). However, also specialized brokers exist. Moreover, data and information platforms such as TheMix or CGAP offer essential value for the microfinance market as a whole.

Service and consulting companies also exist in specific niches. The most prominent business areas for microfinance consulting services are IT solutions and foreign exchange hedging. Obviously, general market research and social impact studies are also major fields.

In microfinance rating agencies exist accordingly to other financial market segments. International and regional rating agencies focusing on microfinance are established and add to the service provided by standard ones. The service mainly includes rating MFIs and tranches of structured vehicles. The market for MFI ratings is segmented. Besides the standard rating agencies, several microfinance specialists such as MicroRate, PlaNet Rating or Microfinanza Rating exist. These often have a regional focus and of course local offices. Hence, they are very much into the business and have close contacts to the local MFIs. Fitch, Standard & Poor's or Moody's additionally offer ratings for structured vehicles. In microfinance, rating agencies charge relatively low or no fees for their rating. However, the rating agencies offer more detailed services to asset managers and investors against charge.

All these services are key elements to provide investment solutions for institutional and private clients in MIVs.[115] In a growing market environment, the service segment will become more specialised and the already high quality standards will improve even more.

4.3 Market situation

4.3.1 Current market conditions

From an investor's perspective, the analysis of market conditions becomes interesting by adding current figures to the key factors. Certainly, an investor can assess the attractiveness of a microfinance investment. Figure 4-10 gives a detailed insight and presents recent data[116] of the invested portfolio of responsAbility Social Investment AG, which are also in line with Microrate's data for major MFIs. The market analysis is looked at from three different points of view: the microcredit debtor, the MFI allowing the credit, and the MIV as one of the funding sources of MFIs.

[115] VON STAUFFENBERG (2008).
[116] Data as of July 2009.

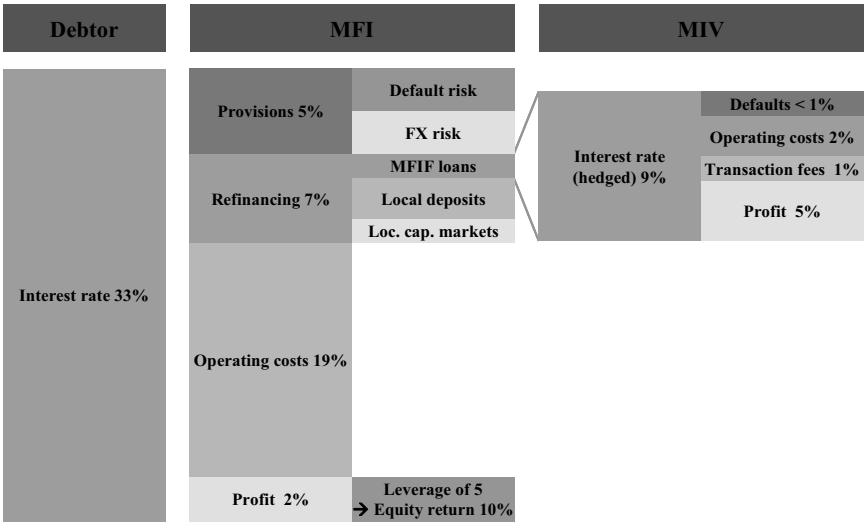

Figure 4-10: Current market conditions in microfinance market

The main player in the cost structure analysis of the microfinance market is the MFI. The MFI has to finance four main positions. Firstly, on average a mature MFI has operating costs of about 19% of the credit amount. The operating costs include the credit agents, accountants, lawyers, regulator fees, and overheads. The operating costs differ regionally. In some areas operating costs of more than 50% apply, for example in Mexico.[117] Secondly, the funding sources for the credit have to be financed. The refinancing costs for a mature MFI are on average 7%. This cost position can be divided in the cost for different funding sources such as MIV loans, local deposits, and local capital market credit lines. Thirdly, a MFI makes provisions for default and foreign exchange risk. Both factors are extremely market driven and vary widely across MFIs. Finally, in general mature MFIs shall generate a return for equity investors. However, as in any other business the profit margin depends on the success of the underlying business. If the MFI follows the golden rules for banks of "matching maturities" and operating costs that are fixed, the only

[117] According to online database of www.mixmarket.org.

uncertainty for profits are provisions such as defaults and other risks. In fact, in the last year provisions increased and profits declined.

Debtors have to pay on average an interest rate of 33% for a microcredit. The interest rate for microcredits consists of a risk premium, the cost of capital, operating costs and a profit margin. These criteria are congruent to credit markets in developed countries yet the costs and premiums are generally higher for microcredits. These four main cost positions for MFIs add to an average interest rate of 33%. Again, the regional differences range from about 15% in Bangladesh to more than 75% in Mexico. Nevertheless, a microcredit is always far cheaper than financing opportunities with "local dealers". In most of the cases, the debtor finances the cost of capital out of generated cash flows. Hence, the credit agent needs a clear picture of the business model of the entrepreneur to evaluate the creditworthiness. Of course this credit assessment is influenced by economic market conditions as these effect business models of entrepreneurs. Consequently, the high cost for microcredits have to be charged with relatively high interest rates.

The insight in the cost analysis of microfinance investment funds is crucial for investors. On the one hand, a market-driven average interest rate for microfinance debt obligations is given. This return component is dependent on demand and supply, but also has a social component as neither DFIs nor MIVs push interest rates to the limit. Additionally, DFIs may also set a price level with subsidized loans. It is essential to internalize, that the interest rates of the debt obligations are not free market rates and may not compensate all risks at any time. Currently, the market has a tremendous supply overhang, because of an increasing MIV volume and new DFI vehicles. The results are decreasing interest rates and also high cash levels in MIVs. On the other hand, operating expenses and provisions of the MIV are the cost. The operating expenses include costs for fund analysis, asset management, sales, and overheads and are charged as a more or less fixed percentage. Moreover, transaction costs such as accountant and lawyer fees, transaction fees and foreign exchange hedging costs are charged against the fund value. Finally, provisions for default risks have to be taken into account. Again, during 2009 some MIVs made the first provisions in microfinance at all. However, up to now all debt obligations and interest rate payments were successfully fulfilled. As a result, the profit for

investors in 2009 is lower than in previous years due to decreasing interest rates and some provisions.

The MIVs operating costs and transaction fees are essential for the performance of microfinance investments. The interest rate is more or less fixed due to market conditions and social investment criteria. Hence, the cost structure of the investment vehicle has a huge impact on performance.

4.3.2 Impact of financial crisis

The microfinance market is captured by the phenomenon of the financial crisis. The impact of the financial crisis affects micro-entrepreneurs, MFIs as well as MIVs.

Microfinance clients experienced two major concerns during the financial crisis. In the beginning of the financial crisis, the commodity prices surged and peaked in summer 2008. The result was a dramatic food and energy price inflation. As one might expect, in low-income households in emerging countries these two goods are the main cost factors and non-substitutable goods. As a consequence, operating costs of businesses with energy consumption rose and some microcredits were also partially used to buy comestibles such as rice. The long-term impact of the latter, understandable action is problematic as the microcredit has then to be financed from a lower capital base.

In a second stage of the financial crisis, the emerging markets were hit by an economic downturn. This affected various business models of micro-entrepreneurs, manufacturing, petty trading and agriculture are said to be the sectors hit most severely. The enormous cycle seen in commodity prices and economic growth will have long-term impact on microfinance clients. The payment of interest rates out of cash flows is in several business segments problematic, the repayment of loans in the current stage is critical. However, the impact of the financial crisis and its economic effects differ regionally.

The MFIs experienced the financial crisis on both sides of the balance sheet. Regarding the assets, in most countries clients were affected by economic factors. In some areas, also political and social problems emerged with Nicaragua being an

extreme example.[118] In such an environment, the MFIs were obliged to focus on quality instead of quantity. In the aftermath of Lehman, most institutions decided after several years with loan portfolios growing on average with more than 30% to come to a hold. In 2009, the loan portfolios showed nearly no growth in most regions and MFIs.[119] This encouraged MFIs to focus on improving processes such as the credit assessment and risk management, advancing the business model and training the employees. However, the true portfolio risks of MFIs evoked. During the long phase with enormous growth rates, maturing credits were generally prolonged and in most cases extended. As maturing microcredits were generally not increased and in some cases even reduced, it was the first time that in some cases clients had to show willingness and ability of loan repayments.[120] As a result of all these factors, an increasing rate of payments for either interest or loan defaulted. MFIs measure defaults and write-offs with the indicators PAR30 (the portfolio at risk with payments more than 30 days defaulted) and finally the write-offs (see Figure 4-11).

[118] Besides various problems in the Nicaraguan microfinance sector such as weak credit assessments and almost no diversification (most clients do business related to the meat production segment), the Nicaraguan president proclaimed in July 2008 to breach debt contracts and stop payments to microfinance institutions.
[119] CGAP (2009a).
[120] LITTLEFIELD & KNEIDING (2009), p. 4.

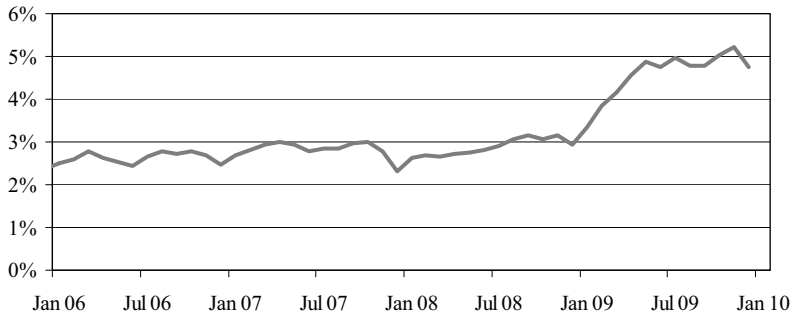

Figure 4-11: PAR30 of Symbiotics50 microfinance index[121]

Furthermore, the international capital markets affected the funding sources of the MFIs. In a first stage, the volatility of foreign exchange markets clearly evoked any hedging issues of MFIs. Simultaneously, at the peak of the financial melt down in October 2008, the most prominent DFIs and MIVs decided to follow a path of cautious growth for the first time. Moreover, local and international capital markets suffered a liquidity shock. As a result, MFIs were forced to change their strategy from growth to value-driven portfolios. In the later stage of the financial crisis, the international capital markets were and still are flooded with liquidity enabling a supply shock of funding sources for MFIs. Hence, MFIs can now profit from low cost of capital and compensate higher defaults to some extent – equal to the situation on developed markets.

The MIVs are trapped by the success of microfinance. During the crisis, microfinance investments were one of the rare asset classes always contributing positive returns. As a matter of fact, in the financial market sell-off and liquidity crisis after Lehman, some major investors had to rebalance portfolios. Thus, there was a short phase in which MIVs had very low or even negative cash positions. On the contrary, the excellent performance generated stable inflows in microfinance funds during 2009. However, the MFIs did not increase their loan portfolio and international markets were flooded with liquidity. On top of that, the Microfinance

[121] SYMBIOTICS (2010). The Symbiotics50 index represents data of 50 major MFIs.

Enhancement Facility which was introduced on the peak of the crisis from the two development agencies IFC and KfW started to invest their immense funding capacities of up to USD 500 million. This amount was now reduced and may not exceed USD 130 million, but another Microfinance Growth Facility from the USA will start investing in 2010 (target size USD 250 million). In fact, both funds have a bad timing. Currently, MIVs suffer due to the supply shock and some have cash levels of up to 40%. The DFIs rescue funds decrease interest rates for debt obligations of MFIs and furthermore, the high cash levels harm returns and track record of MIVs. Hence, the private and institutional investors' huge interests as well as the bad timing of political interventions distort the competition.

The financial crisis was the first shock for the microfinance industry and its processes. In general, the very young microfinance industry survived the financial and liquidity crisis quite astonishingly in a sound condition. Many processes worked out, others were adapted quickly. However, some issues such as credit quality, consumer lending and an overhang of liquidity supply of MIVs still exist and will challenge the microfinance industry. Furthermore, in some cases an industry standard is still missing. The provisioning process of MIVs is one example. Even though most funds have investments in the same MFIs, the funds interpret the guidelines for provisioning differently. In the work out case of a Nicaraguan MFI, all major players of the microfinance industry had a shared interest in solving the issue. Nevertheless, the provisioning policies differed across the MIVs. In conclusion, the microfinance industry is challenged by the financial crisis, but it is also an opportunity to demonstrate the capacity and finally become a mature asset class.

4.3.3 Market potential

The microfinance sector has an estimated volume of more than USD 30 billion.[122] However, studies estimate that only 10-15% of micro-entrepreneurs have access to basic financial services. Hence, the potential for microfinance credits is estimated to

[122] See footnote 100.

be around USD 280 billion resulting in an untapped client potential of about USD 250 billion (see Figure 4-12). [123]

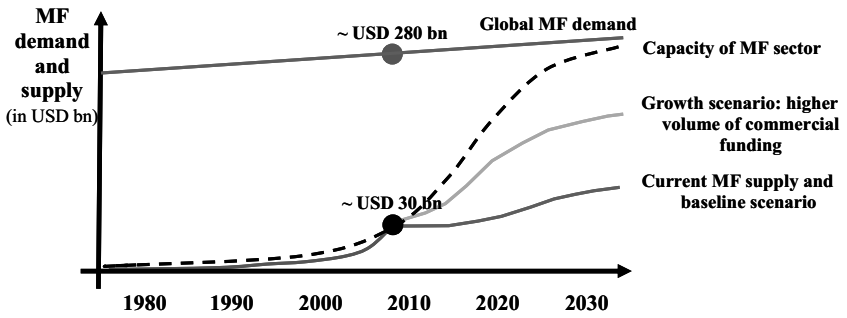

Figure 4-12: The potential of microfinance

The role of international capital markets is crucial to enable the outlined market growth. The funding of microcredits also depends on credit lines. In some countries, MFIs are not allowed to take savings. In addition to that, a banking license including an organisational and regulatory framework is a prerequisite in most countries. Therefore, some MFIs have to rely on MIVs debt obligation and local market credit lines as main funding sources. In addition, also MFIs with a banking license tap international and local credit markets to enable growth. Hence, the potential funding needs from MIVs for the microcredit market can be calculated assuming the present funding structure of MFIs (see Figure 4-7). Currently, foreign capital accounts for more than 20% of the MFIs' funding sources. In conclusion, this would imply a potential funding gap for the international capital markets of more than USD 50 billion.

The acceleration of funding sources during the last few years enabled strong growth in microfinance, which is currently halted due to financial crisis effects. If the economic and financial market situation stabilizes, the success story could pro-

[123] MEEHAN (2004), p 5. The same figures are also stated by many others such as MCKINSEY (2006) and DIECKMANN (2007).

ceed. The prerequisites in form of capacities in various fields of the microfinance sector are provided. Furthermore, the current supply overhang in funding of MFIs would allow a higher growth scenario. However, one risk scenario may include disappointed investors. The high cash levels of MIVs and the decreasing interest rates for debt obligations to MFIs lead to decreasing MIV performances. As a result, the capital might be withdrawn for higher return investments exactly when funding needs return. However, the majority of the investors is not excessively focussed on financial return. As a result, the growth of the microfinance market is dependent on the demand of people in the emerging markets for financial solutions and the capacity of funding sources.

4.4 Microfinance investments – insights and quantitative analysis

4.4.1 Dexia Microcredit Fund

The Dexia Microcredit Fund (DMF) is the public fund with the longest track record. The fund started in 1998 and is managed by the microfinance specialist BlueOrchard. In December 2009, the net asset value (NAV) was USD 542 million. The DMF is one of the most prominent and the largest public microfinance investment vehicle.

The fund invests in debt instruments issued by microfinance institutions with up to three years in maturity. Investments are allocated to MFIs in Africa, Asia, Eastern and Central Europe as well as Latin America. The DMF seeks to achieve an attractive financial return for investors while also providing social impact. The target annual return of the fund is 6-months Libor plus 1-2%.[124] Consequently, the BlueOrchard specialists hedge the interest rate risk of the debt obligations according to the maturity of its benchmark.

The main return characteristics of the DMF are shown in Figure 4-13. The annualised return of the USD tranche was 4.71% since inception and the fund has a

[124] BLUEORCHARD (2009), p. 2.

Sharpe ratio of 1.78.[125] The outstanding Sharpe ratio is caused by the low volatility of the monthly returns.[126]

Investment period	12/1998-02/2010
Return	4.68%
Risk	1.03%
Risk free rate (during period)	2.85%
Sharpe Ratio	1.78

Figure 4-13: Key figures Dexia Microcredit Fund[127]

The correlation matrix with all major asset classes reveals further interesting characteristics (see Figure 4-15). In the overall investment period, the DMF was uncorrelated to many asset classes. Despite a positive correlation to USD money market (0.34) and a negative correlation to commodities (-0.18), the funds correlation was below 0.1 to all other major asset classes. Furthermore, a 12-months rolling correlation analysis approves the comparably low correlation. Moreover microfinance investments have no stable correlation with equity, bond or money market investments (see Figure 4-14). Thus, the often proclaimed low correlation of microfinance can be evidenced by quantitative analysis of fund data. However, the key question is whether the low volatility of the NAV unveils the risks of microfinance investments.

[125] The Sharpe ratios are calculated with the returns of 3-months US Treasury bills. Until 2007, the use of the USD 3-months LIBOR would have been adequate. However, the financial crises added very volatile counterparty premiums in the interbank market. As a result, LIBOR rates are not an adequate data series for risk free rates anymore.

[126] The Sharpe ratio is often used in portfolio management and also cited for microfinance. This is the reason, why it is stated here. However, the main problem in measuring microfinance performance adequately is the risk factor. If the risk is underestimated, the Sharpe ratio will be constantly overestimated. In fact, this is exactly the case in microfinance, if risk is measured by fund volatility (for a more detailed discussion see chapter 4.4).

[127] Bloomberg data as of February 2010.

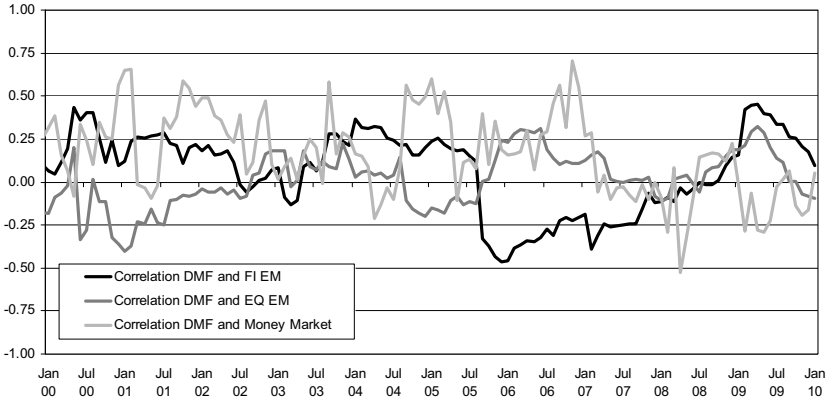

Figure 4-14: 12-months rolling correlations of selected asset classes and DMF[128]

[128] Bloomberg data as of February 2010. Own calculation with indices shown in Figure 6-1.

	MM USD	EQ World	EQ EM	FI World	FI IL	FI EM	FI CRE	FI HY	FI CB	FI CAT	HF	PE REITS US	COM	FI MF
Money Market USD	1.00000													
Equities World	0.02943	1.00000												
Equities EM	-0.00459	0.86957	1.00000											
Gov Bonds World	-0.09833	0.14582	0.07979	1.00000										
Gov Bonds Inflation Linked	-0.03980	0.42271	0.37568	0.75491	1.00000									
Gov Bonds EM	0.03038	0.61573	0.65827	0.30112	0.51333	1.00000								
Credit Bonds	-0.05590	0.54646	0.53900	0.67049	0.85404	0.70871	1.00000							
High Yield Bonds	-0.06420	0.73183	0.75103	0.14642	0.49095	0.81247	0.75272	1.00000						
Convertible Bonds	0.01661	0.83679	0.80815	0.26958	0.51525	0.68061	0.76728	0.77806	1.00000					
Cat Bonds	0.21415	0.25017	0.25187	0.14822	0.29353	0.32435	0.39924	0.38536	0.38226	1.00000				
Hedge Funds	0.16149	0.61849	0.69243	0.10713	0.37210	0.54131	0.61074	0.62353	0.80773	0.42659	1.00000			
Private Equity	0.14268	0.75028	0.74156	-0.12899	0.14972	0.52125	0.36721	0.64256	0.67055	0.26396	0.63885	1.00000		
Reits US	0.03892	0.77844	0.69470	0.24692	0.52524	0.58985	0.63712	0.72374	0.61374	0.26077	0.44534	0.64073	1.00000	
Commodities	0.09318	0.38279	0.44101	0.12074	0.40811	0.27613	0.40928	0.36396	0.42811	0.24243	0.46720	0.36192	0.35042	1.00000
Dexia Microfinance Fund	0.34026	-0.02302	-0.07841	0.07578	0.07975	0.04480	0.00594	-0.01078	-0.09172	0.09072	-0.06219	-0.09452	0.05118	-0.17810	1.00000

	MM USD	EQ World	EQ EM	FI World	FI IL	FI EM	FI CRE	FI HY	FI CB	FI CAT	HF	PE REITS US	COM	FI MF
Money Market USD	1.00000													
Equities World	0.09113	1.00000												
Equities EM	0.11144	0.90752	1.00000											
Gov Bonds World	-0.03486	0.21464	0.19356	1.00000										
Gov Bonds Inflation Linked	0.03224	0.60309	0.58848	0.72586	1.00000									
Gov Bonds EM	0.01924	0.69595	0.72923	0.38605	0.72626	1.00000								
Credit Bonds	-0.02771	0.70114	0.69352	0.61544	0.84895	0.83028	1.00000							
High Yield Bonds	-0.03518	0.81212	0.78643	0.16451	0.61952	0.84971	0.82528	1.00000						
Convertible Bonds	0.06074	0.88081	0.88099	0.30251	0.68238	0.79984	0.86022	0.89385	1.00000					
Cat Bonds	0.22273	0.26365	0.25173	0.21705	0.35241	0.37747	0.47194	0.43120	0.40549	1.00000				
Hedge Funds	0.22106	0.71473	0.80579	0.08772	0.51484	0.57253	0.64197	0.74291	0.81609	0.44706	1.00000			
Private Equity	0.10909	0.78484	0.73199	-0.06876	0.31199	0.55442	0.46240	0.70978	0.62837	0.26612	0.63982	1.00000		
Reits US	0.07878	0.91224	0.79453	0.28209	0.60027	0.73012	0.68836	0.80362	0.78219	0.26751	0.59223	0.79410	1.00000	
Commodities	0.07659	0.53863	0.58305	0.08263	0.52654	0.35868	0.46187	0.49685	0.50212	0.25113	0.62925	0.46761	0.41884	1.00000
rAGMicrofinance Fund	0.45813	-0.30108	-0.31273	0.03709	-0.11192	-0.23839	-0.18522	-0.30940	-0.29071	0.03528	-0.18393	-0.23394	-0.28018	-0.08859	1.00000

Figure 4-15: Correlation matrix (incl. DMF; 12/1998 – 12/2009)

Figure 4-16: Correlation matrix (incl. rAGMF; 12/2004 – 12/2009)

4.4.2 responsAbility Global Microfinance Fund

The responsAbility Global Microfinance Fund (rAGMF) is a public microfinance debt fund with moderate equity exposure. The fund is managed by responsAbility Social Investment AG and was set up in 2004. Indeed, it is among the most prominent microfinance funds and has a NAV of USD 477 million.

The rAGMF invests mainly in debt instruments issued by MFIs. Furthermore, the fund prospectus allows fair trade and up to 10% equity investments. The fund allocates investments in Africa, Asia, Eastern and Central Europe as well as Latin America. The rAGMF seeks to achieve an annual return above money market.[129]

The main return characteristics of the rAGMF are shown in Figure 4-17. The annualised return of the USD tranche has been 4.11% since inception. The fund made several provisions in 2009; however no defaults happened as yet. In microfinance, the fund is known for conservative valuation for both equity investments as well as debt obligation provisioning. The Sharpe ratio of the fund is 1.35. Again, this high risk-adjusted return key figure is mainly due to the low volatility of microfinance fund performances.

Investment period	12/2004-02/2010
Return	4.11%
Risk	1.24%
Risk free rate (during period)	2.44%
Sharpe Ratio	1.35

Figure 4-17: Key figures responsAbility Global Microfinance Fund

The correlation matrix of the rAGMF reveals low and mainly negative correlations to other asset classes (see Figure 4-16). The USD money market is the only asset category with a significant positive correlation (0.45). The correlation matrix illustrates the attractiveness of microfinance investments from a risk perspective. The

[129] responsAbility (2009), p. 2.

negative correlations to almost all asset classes generate diversification potential. However, correlations may drift in different market situations.[130]

The correlation of the DMF and rAGMF in the last five years was about 0.41. The correlation tends to be high. However, the market distortions during the last two years affected the funds differently. On the one hand these effects are caused by currency hedges. On the other hand a different provisioning policy had an impact on returns. As a result, the correlation was very volatile during the investigated period.

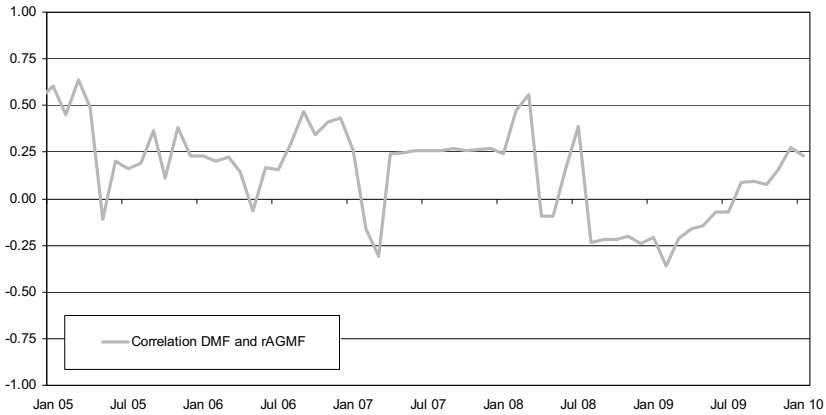

Figure 4-18: 12-months rolling correlation of DMF and rAGMF

4.4.3 Structured products

Structured products such as collateralized debt or loan obligations (CDOs or CLOs) are also marketed. The first microfinance CDO structure was implemented in 2004 – the BlueOrchard Microfinance Securities I (BOMSI) (see Figure 4-19 for an example structure). Structured products are less regulated than funds and are generally closed-end funds with a time horizon of 5-7 years. For this reason, the vehicles

[130] During the financial crises the correlations of many asset classes increased dramatically. From 2008, the diversification potential of several asset classes lowered. One prominent example is the USDEUR exchange rate and its correlation with equity markets. A strong EUR correlates with positive equity markets, whereas in stress situations the old reserve currency USD is favored.

often invest in one period according to the vehicle's maturity. Consequently, diversification considerations are somehow limited and the risk profile of the long-term debt obligations also differs from microfinance investment funds.

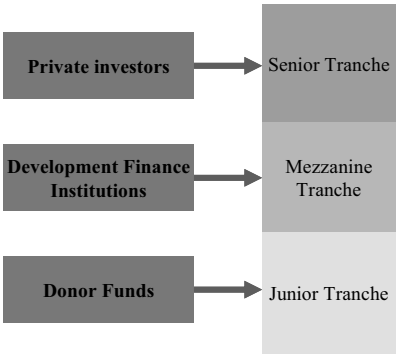

Figure 4-19: Illustrative structure of a microfinance CDO vehicle

In 2005 to 2007 several microfinance CDO or CLO structures were set up.[131] But the current financial crises stopped the success story of this new structure for institutional and private microfinance investments. Besides the closed-end vehicles, the European Fund for Southeast Europe (EFSE) offers an open-end structure. It was set up in 2005 and is the largest microfinance vehicle with close to USD 1 billion assets under management. However, the funds definition of microfinance is questionable, for example it allows loans up to USD 100.000. [132]

4.4.4 ProCredit Holding

The ProCredit Holding is the most prominent microfinance equity opportunity. The German holding company was founded in 1998 and owns 22 banks operating in emerging countries in Eastern Europe, Latin America and Africa. The core business is the provision of banking services to small- and medium-sized entrepreneurs as

[131] CALLAGHAN ET. AL (2007), pp 120.
[132] EFSE (2010), p 1.

well as low and middle income savers. For this reason, focus areas are microcredits and savings deposits.[133]

ProCredit Holding offers equity stakes to investors. Due to their holding structure it is one of the few options to build up a major microfinance equity stake. Unfortunately, ProCredit Holding is not publicly listed. Hence, equity valuations are performed quarterly and access is limited. Accordingly, at the current stage of research a quantitative analysis of microfinance equity stakes is not feasible.

4.5 Microfinance investments in an asset allocation framework

The quantitative analysis of microfinance data contains some major limitations. A derivation of return estimates, risk and correlation expectations would be a prerequisite for an integration of microfinance into an asset allocation framework.

First of all, a clear understanding of microfinance investments is necessary. The MIVs debt obligations with MFIs are booked at par value, besides some very few exceptions with provisions in 2009. This implies a hold to maturity strategy with no default risk. Hence, except from foreign exchange or interest rate hedging no volatility affects contracted debt obligations. In the case of a hard currency, non-interest rate hedging vehicle volatility of returns solely applies from roll-over effects due to interest rate level variations. Accordingly, in many cases the volatility of returns is only affected by a shift in the portfolio of debt obligations.

In finance, several investments with a low volatility of returns due to the investment structure exist. Two prominent examples for this are private equity and real estate funds. In both cases, non-publicly listed open or closed-end funds, the investments are not valued on a daily or even monthly basis. Generally, an expected return over a certain period is modelled and a more or less linear profit shown, provided no unexpected provisions apply. However, for the same asset classes publicly listed vehicles emerged. These publicly listed vehicles with a liquid secondary market reveal a significantly higher volatility of returns than non-listed illiquid

[133] For more information please refer to www.procredit-holding.com.

vehicles.[134] Obviously, the volatility of returns is often used as a risk parameter in asset allocation. Hence, the differences of vehicle structures have to be considered. In conclusion, a distinction of market valued and not market valued asset classes or indices is key in asset allocation.

The volatility of returns gives a risk indication for market valued investment vehicles. Market prices reflect risk factors such as credit or business risks perceived by investors. Therefore the volatility of the prices is an indicator for risks perceived from market participants according to available information. Asset classes or indices representing products without a liquid secondary market have no market prices. Moreover, they do not include risks in prices. Consequently, the volatility of returns has no risk indication in illiquid markets or if no secondary market exists. Investments of MIVs are in an illiquid market and hence the volatility of returns is not an adequate measure for risk.

A quantitative analysis of microfinance investments reveals no meaningful risk and correlation parameters for asset allocation purposes. As outlined above, all calculations based on the volatility of monthly returns are misleading. Hence, the volatility as a risk parameter and correlation figures are inappropriate for asset allocation purposes. A different approach to derive those parameters for microfinance investments needs to be developed. On the one hand, risk parameters of the underlying investments can be consulted. This includes for example figures such as the portfolio at risk of MFIs defined by payments more than 30 days in default (PAR30). On the other hand, a qualitative approach such as scenario analysis can be considered.

A derivation of expected returns for microfinance from past data is meaningless. Firstly, the data history is too short. Indices of MIV investments such as the Symbiotics50 index have about five years of monthly data. Moreover, the oldest single fund with monthly data started in 1998. Therefore, the available data do not include a broad economic spectrum and a full economic long-term cycle. Secondly, the

[134] For example, a non-listed LGT Capital Partners private equity vehicle reveals a volatility of monthly returns of about 9% from 2000-2010, whereas as listed private equity vehicle from the same company has about 27% for the same period. Hence, in this comparison the volatility of monthly returns of a listed vehicle is 3 times higher than the one of a non-listed vehicle.

valuation methodology described above prevents a meaningful attribution of returns to economic cycles. Non-liquid products cushion the perceived risks of investors in crisis situations, because the prices cannot fluctuate according to market perception. Consequently, a backward-looking quantitative analysis of returns is no adequate instrument for future return expectations of microfinance investments.

Overall, a quantitative analysis of microfinance return, risk and correlation parameters is not an adequate methodology for asset allocation purposes. The short history, specific valuation concepts and the absence of a liquid secondary market for microfinance investments require a different approach. Instead of the common quantitative approach, in this case a qualitative methodology might generate more convincing results. The scenario thinking is such a qualitative approach that also fits into the asset allocation concept. The method advises to bring experts from the relevant topics together. Moreover the mixture of asset allocation and microfinance experts implementing a structured evaluation process is one of the most profound qualitative approaches. In conclusion, a scenario process regarding microfinance investments may generate sound return, risk and correlation parameters and hence enable an integration of microfinance into an asset allocation framework.

4.6 Summary

Microfinance is commonly defined as financial services for the poor. A subcategory of microfinance is microcredits, but the distinction in public is inexact. Microcredits are credits for entrepreneurs in the emerging market. Hence, the size is relatively low resulting in high operating costs. Besides individual credits, group and community lending emerged primarily in Asia and Africa to reduce operating costs and minimize defaults. As a result, defaults have been on a moderate level also during the financial crisis. Microcredits are allowed by MFIs, which sometimes already have a banking license and than also can take deposits. One refinancing source of MFIs is the international capital market. However, the market for MFI debt obligations is still small and illiquid. Therefore only some dedicated microfinance funds and investment vehicle participate. However, the market potential is still huge and investments via public funds offer exposure to debt obligations of MFIs or in some cases even equity. Up to now, no debt obligation defaulted even during the financial crisis. In some workout cases the backing of microfinance by supranational or gov-

ernmental organizations such as IFC or KfW has proven to be supportive. Thus the assessment of microfinance investments in an asset allocation context is complex as no proven track record throughout a whole business cycle exists and emerging asset classes often also have a mission drift.