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Article 5:
Diversification and the global microfinance sector

DIVERSIFICATION AND THE GLOBAL MICROFINANCE SECTOR

Many asset classes, such as commodities, have been lauded as possessing strong diversification properties. However, when the global financial crisis hit these alleged properties seemed to vanish into thin air. However, investigating the returns' characteristics of the microfinance sector show its diversification properties have remained intact. While the small size of the microfinance market is a potential barrier to a more widespread allocation to the sector, we expect these constraints will ease as the microfinance industry matures.

Executive summary

Microfinance describes the provision of banking services to individuals, households and small businesses at the base of the income pyramid. Microfinance also supports global efforts to increase financial inclusion, which studies show can not only spur economic activity, but, also reduce income inequality.

According to the World Bank, there are currently an estimated 2.0 bn working age adults, that is almost half of the total adult population globally, with no access to financial services. Recent research by McKinsey Global Institute (2016) finds that broadening access to financial services, particularly with digital technologies, could increase the GDP of all emerging economies by 6% by 2025 and potentially more in certain countries. This would represent additional economic growth of USD 3.7 bn equivalent to adding an economy the size of Germany and potentially creating up to 95 million new jobs in emerging economies across all sectors of the economy.

With its roots in Bangladesh in the early 1970s, the microfinance sector has grown significantly since its early days. From the narrow provision of microcredit, that is the provision of small loans to low income entrepreneurs, it now encompasses the delivery of savings instruments, mobile payment systems and micro-insurance, that is protecting low-income people from certain risks such as illness, accidents or natural disasters.

Consultative Group to Assist the Poor (CGAP) 2015 data estimate the size of the microfinance industry at around USD 70 bn and serving over 200 million borrowers. In terms of private sector funding a large proportion of this is directed through financial intermediaries in the form of microfinance investment vehicles (MIVs), which have also grown significantly over recent years. In terms of organisational structure, MIVs invest in microfinance institutions (MFIs) as intermediaries, which are typically in the form of a commercial bank, non-bank, non-governmental organisation (NGO) or cooperative. Meanwhile small, medium-sized enterprise (SMEs) financiers are mostly in the form of a commercial bank or non-bank.

Both MFIs and SMEs financing companies, which are captured in MIV portfolios, are generally regulated by their respective country's central bank, the microfinance regulatory body or a relevant financial regulatory authority.

The type of funders, that is those entities that provide finance to the institutions who then offer financial products to the end-recipient, have also evolved from NGOs and cooperatives to foundations, bilateral and multilateral agencies and more recently by an increasing number of institutional investors.

One challenge for financial inclusion is how to service SMEs since they are often referred to as the "missing middle". These enterprises are typically too small to be serviced by local banks, given over-proportionate transactions costs and the risk being perceived to be higher than for larger corporates, and too large to be serviced by MFIs.

According to the 2016 Symbiotics Microfinance Survey, institutional investors have remained the prime funding resource for MIVs although capital from the public sector has grown significantly. Industry figures indicate that there exists a significant under-supply of microloans in the marketplace today with 2.0 bn potential micro-borrowers. As a result, there is the prospect of strong growth for the microfinance sector. McKinsey Global Institute (2016) estimates a total credit gap of USD 2.2 tn for micro, small and medium sized enterprises in emerging economies.

One growing issue and opportunity for the microfinance sector is how to support their clients in adapting to the impacts of climate change. As floods, droughts and other disasters become more frequent and intense, MFI clients will be negatively impacted. MFIs thus need to be more aware of potential climate impacts in their geographies. In cooperation with governments and development finance institutions, MFIs have an important role to play in supporting training and financial solutions that help clients adapt to and reduce the risk of climate change (Fenton 2016).

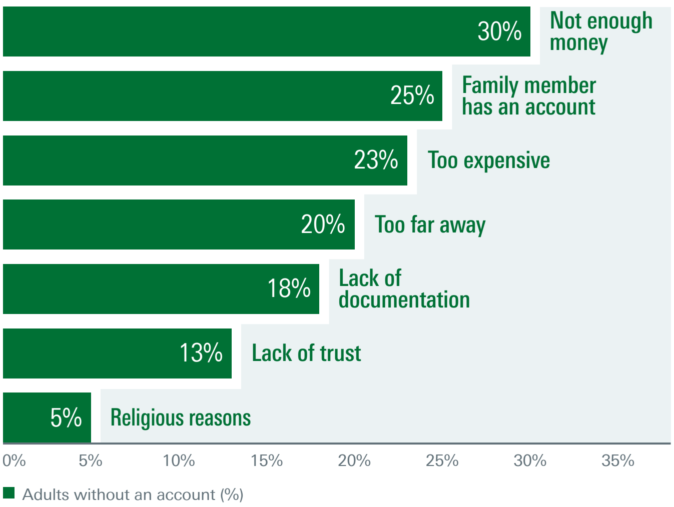
While there have been setbacks to the microfinance sector over recent years, most notably excessive lending and over-indebtedness in India, drawdown events in terms of returns have tended to be relatively short-lived and these have been followed by periods of rapid recovery.

Correlation analysis shows that MIVs have also displayed stable and predictable returns with low volatility even during the 2008/09 global financial crisis. Analysis also reveals that microfinance returns have exhibited a low correlation to traditional asset classes such as fixed income and equities and are therefore attracting increasing investor interest for their portfolio diversification properties. However, currently, the small size of the microfinance market is a potential barrier to a more widespread allocation to the sector.

1 | Financial inclusion

The World Bank defines financial inclusion as the proportion of individuals and firms that use formal financial services. It is therefore different to access to finance since some people may have access, but, choose not to use financial services. The issue is therefore the degree to which the lack of inclusion derives from insufficient demand for financial services or from barriers that impede individuals and firms from accessing services. According to a World Bank poll, tangible obstacles exist to achieve financial inclusion and Figure 1 identifies the reasons most frequently cited for not having a bank account.

Figure 1: Reported reasons for not having a bank account



Note: respondents can choose more than one reason
Source: Global Financial Development Report, World Bank Group (December 2014)

Financial inclusion must also be well planned since opening bank accounts that lie dormant or irresponsible credit lending practices will have at best no economic benefit or at worst increase economic instability. Evidence also reveals that for the poor it is access to savings and automated payments rather than access to credit that may be more important for poverty reduction.

Meanwhile for small and medium sized enterprises improving access to credit has been seen to be beneficial for growth. Consequently a financial sector that provides a wide range of services and products to a broad range of customers is a necessary condition for successful financial inclusion. Financial inclusion is therefore an important step in a country's economic and social development. In 2011, the Maya Declaration was launched at the Alliance for Financial Inclusion (AFI) Global Policy Forum in Mexico with signatories committing themselves to make measurable progress to increase financial inclusion.

The significance of financial inclusion was given a further boost following the Sustainable Development Goals 2030, which were unanimously agreed by the UN Assembly in September 2015. Of the 17 Sustainable Development Goals, ending poverty, ending hunger, gender equality, sustainable, inclusive economic growth and sustainable, inclusive industrialisation seek improved or universal access to financial services as part of the solution to achieve these goals.

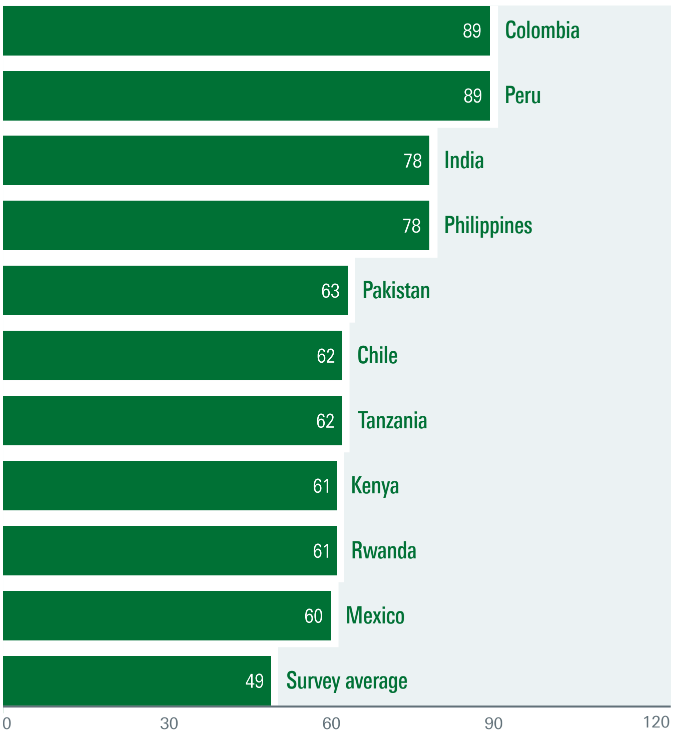
According to McKinsey Global Institute (2016), an estimated 75% of people live in countries where less than 5% of payments are made digitally while only 2% of the global population live in countries where more than 50% of transactions are digital. The heavy reliance on cash creates costs for financial institutions, reducing the number of customers they can profitably serve and making it difficult to assess customers' creditworthiness. However, 80% of adults in emerging economies had mobile phone subscriptions compared to 55% who had a bank account.

The growth of 'mobile money' or digital financial services is a major opportunity to help address some of the issues with financial inclusion. Digital technologies can cut the cost of providing financial services by 80–90%. Many microfinance institutions are starting to work in this area but more could be done. Digital banking services including by microfinance institutions (MFIs) could add 1.6 bn people to the financial system, create USD 4.2 bn of new deposits, reduce loss of government tax revenue by USD 110 bn and lead to USD 2.1 tn of new loans.

In its Microscope 2016 report, the Economist Intelligence Unit (EIU) assessed the enabling environment for financial inclusion as well as the regulatory and structural framework for MFIs in over 50 countries. The report tracks more than 40 data points for each individual country to assess, among other things, the regulatory and supervisory environment across the financial products and services sector. It ranks countries on a 0-100 scoring system, with 100 representing the best, Figure 2.

Financial inclusion is seen as part of the solution to achieve many of the 17 Sustainable Development Goals including ending poverty and gender equality

Figure 2: The top 10 countries in terms of an enabling environment for financial inclusion



Source: EIU Global Microscope 2016 (April-August 2016)

Not surprisingly, it reveals some overlap between those countries that have an enabling environment for financial inclusion and the development and size of a country's microfinance market.

The EIU report also reveals an improvement in institutional support for the safe provision of financial services to low income populations through the increased supervision of microfinance activities. MFIs may not be as rigorously supervised as the banks, but the regulatory environment is improving overall, with new codes of conduct coming into play.

2 | The history of microfinance

Microfinance is broadly speaking the provision of financial services to low-income households and small informal businesses. The scope of the microfinance sector has grown significantly since its origins in Bangladesh in the 1970s. From the early days of solely focusing on microcredit, that is small loans to low income entrepreneurs, the microfinance sector now includes the provision of savings instruments, payment systems and specifically electronic cash and micro-insurance. Indeed efforts are underway to increase the penetration of low-cost digital payment systems as technology becomes a significant facilitator in the development of the microfinance sector.

Traditional microcredit loans have been unsecured loans, which have typically targeted women borrowers in rural areas where the majority of the global poor reside. Loan amounts have tended to be very small with short contract terms (e.g., 3–6 months) and frequent repayment schedules (e.g., weekly), which gradually increase according to the clients' credit worthiness.

Historically microlending programmes were initially started by nongovernmental organisations (NGOs), such as Save The Children or CARE, and bilateral aid organisations such as USAID. Over time, and as local microfinance laws were passed, these organizations required their microlending programmes to be spun into separate formal entities. Later, the laws evolved to define pathways for these non-commercial lending entities to transform into for-profit entities that could offer a wider range of products, with more active regulatory supervision, which would eventually allow these entities to apply for a deposit license or transform further into a bank. With the surge in transformations came the opportunity for external investors to enter the shareholding structure of microfinance institutions (MFIs), bringing in a range of social investors. This contributed to faster growth in the sector, which invited lending from microfinance investment vehicles (MIVs), who in turn lend to MFIs who then provided financial services to micro-borrowers.

These developments enabled a diverse group of funders to emerge, Figure 3. These ranged from foundations, bilateral and multi-lateral agencies and Development Finance Institutions (DFIs) to include, in recent years, institutional investors, commercial banks, private equity funds and individuals.

Figure 3: Examples of public and private sector funders

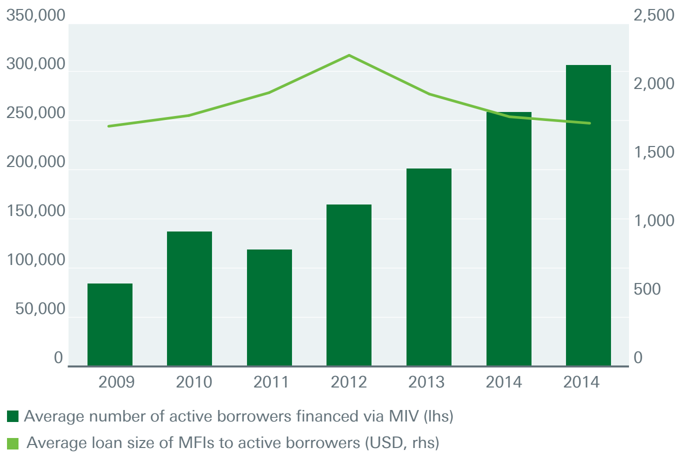
Public funders	Organisation	Tools used
Bilateral agencies	CIDA, GTZ, SIDA, SDC, DFID, USAID	Grants, guarantees, technical assistance
Multilateral agencies	AfDB, ADB, EC, IBRD, IFAD, UNCDF	Grants, guarantees, debt, equity
DFIs	AECID, BIO, CAF, FMO, EBRD, EIB, IIC, IFC, KfW	Debt, equity, grants, guarantees, technical assistance
Private funders	**Organisation**	**Tools used**
Foundations	Gates, Ford, Grameen, MasterCard, Dell	Grants, debt, equity
NGOs	ACCION, ACP, FINCA, SEPAR	Grants, debt, equity
Institutional	Pension funds, insurance companies, private equity firms	Debt, equity
Individuals	High-net-w orth, retail investors, individual donors	Debt, equity, donations, deposits

Source: Microfinance Handbook 2013 (February 2013), Deutsche Asset Management

In terms of their characteristics, MIVs can be classified as private investment funds managed by specialised investment managers. In addition, approximately 50% of all microfinance investment from DFIs, institutional investors and individuals is channelled through MIVs. As of the end of 2015, there are just over 110 MIVs investing in microfinance assets of USD 11.6 bn.

According to the 2016 Symbiotics Microfinance Investment Vehicles Survey, of the various funding sources, institutional investors remain the prime funding resource for MIVs. In terms of outreach, the average MIV reaches just over 307,000 borrowers with an average loan size of USD 1,575, Figure 4.

Figure 4: MIV outreach by number of borrowers and average loan size of MFIs



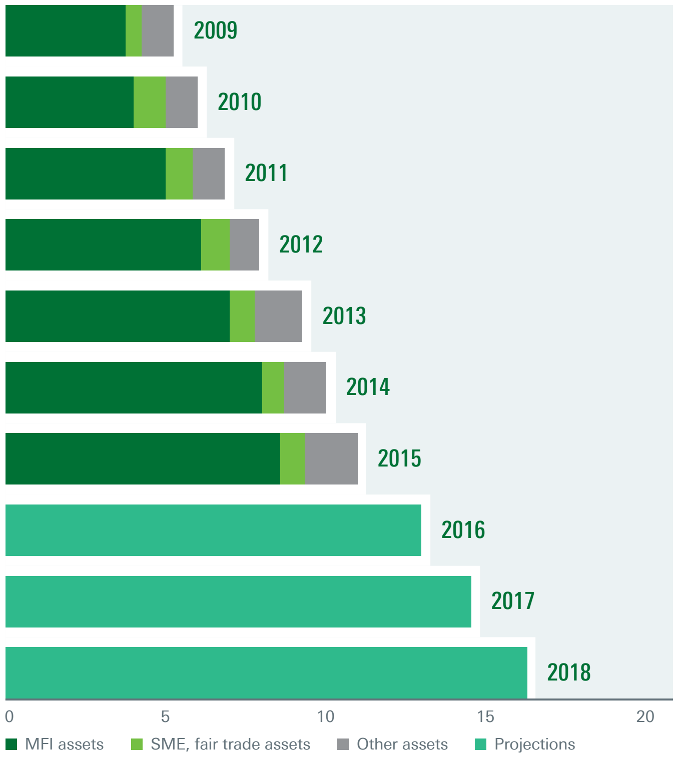
Source: 2016 Symbiotics MIV Survey (September 2016)

According to volume, around three quarters of MIVs are categorized as fixed income funds, where more than 85% of their total non-cash assets are invested in debt instruments. The remainder are split roughly equally in volume terms between mixed funds and equity funds with equity funds defined as where more than 65% of their total non-cash assets are invested in equity instruments.

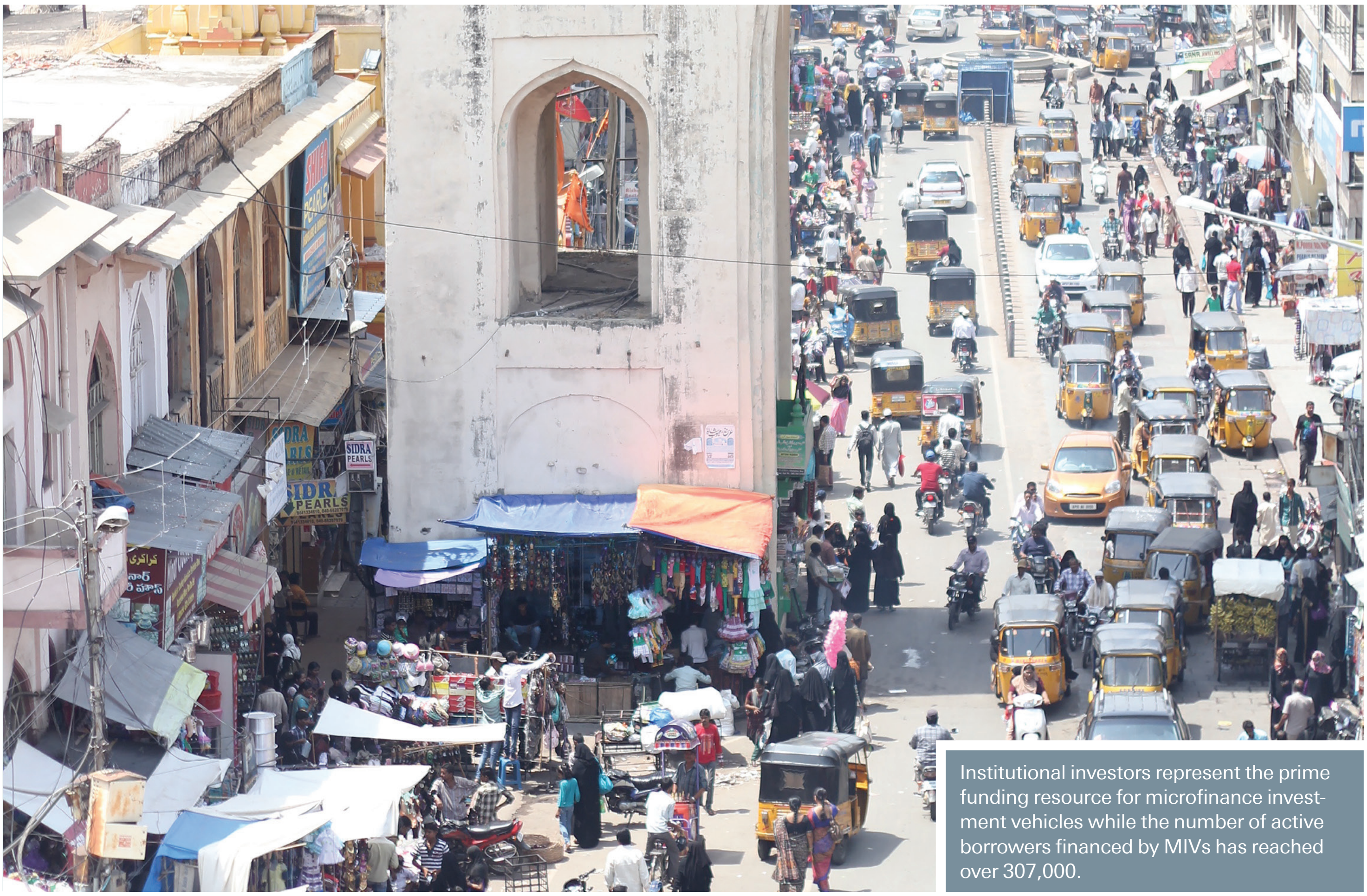
Another characteristic of MIVs is the option of either being open- or not open-ended. Since MFIs typically borrow short-term and roll over, this creates a portfolio that is comprised of stable, long-term relationships, which match the open-ended structure and typically the need of institutional investors with long-term horizons.

Over recent years, assets in MIVs have grown at an average historical growth rate of 16% while default rates are typically very low at <1%, or even <0.1% at small MIVs. Consequently if current growth levels persist MIV assets will reach over USD 16 bn by 2018, Figure 5. Even with this growth in the sector, we view the market as still under-supplied not least given the extent of financial exclusion.

Figure 5: Microfinance investment vehicles size and growth (USD bn)



Source: 2016 Symbiotics MIV Survey (September 2016)



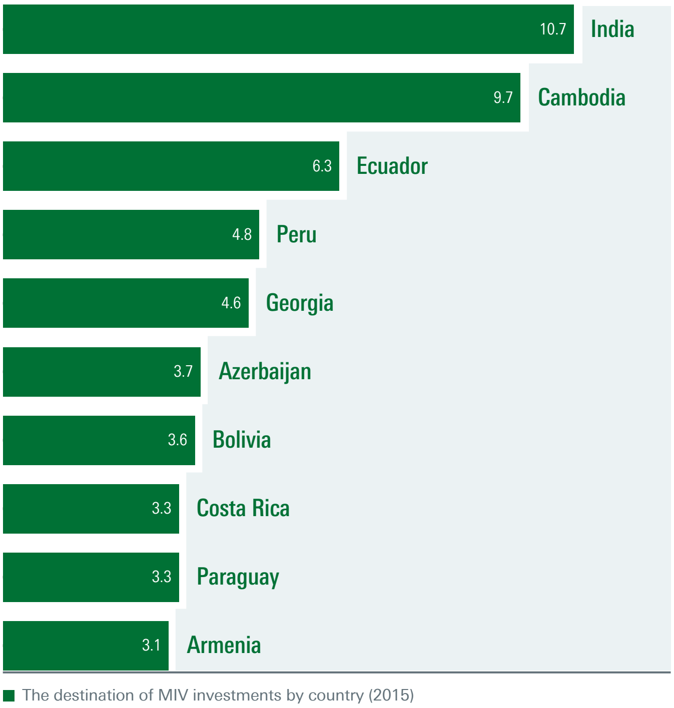
Institutional investors represent the prime funding resource for microfinance investment vehicles while the number of active borrowers financed by MIVs has reached over 307,000.

Microfinance investment vehicles have a wide regional exposure from Eastern Europe to Latin America with South Asia attracting increasingly more capital.

While the number of MIVs has increased significantly over recent years, the market remains heavily concentrated. This is highlighted in the Symbiotics 2016 Microfinance Investment Vehicles Survey, which surveyed 82% of the 113 MIVs in the marketplace with combined assets representing 95% of the market. Symbiotics data reveal that the MIVs captured in the survey are managed by 46 different asset managers located in 16 countries. However, microfinance fund managers are located primarily in three countries, Switzerland, Netherlands and Germany, with the top 3 asset managers managing 41% of the sample's total assets.

In terms of regional activity, MIVs have the largest regional exposure to Eastern Europe & Central Asia on the one hand and Latin America and the Caribbean on the other. Compared to 2014, MIV portfolios are more balanced with South Asia attracting more capital. In terms of individual countries India received the largest share of direct microfinance investment in 2015 followed by Cambodia and Ecuador. Together the top 10 countries received more than half of MIVs direct microfinance investments in 2015, Figure 6.

Figure 6: The top 10 recipients of MIV investments in 2015



Source: 2016 Symbiotics MIV Survey (September 2016)

However, one of the challenges for financial inclusion across the broader economy is how to service small, medium sized enterprises (SMEs). In the developed world, SMEs are collectively the largest employers within an economy, but in the developing world are under-represented. We view the lack of access to credit as a contributory factor to the under-development of the SME sector in the developing world. According to International Finance Corporation (IFC), there exists a financing gap is this segment of the market, which is estimated to be as large as USD 2.6 tn.

3 | The risk, return and diversification properties of the microfinance sector

What started out as a means to address poverty alleviation via NGOs and cooperatives, the past decade has seen microfinance evolve into an important part of any socially responsible investment portfolio. For certain pension funds, investing in microfinance is seen as part of their Corporate Social Responsibility strategy. For others, financial considerations such as portfolio diversification dominate the motivation to be active in the microfinance sector.

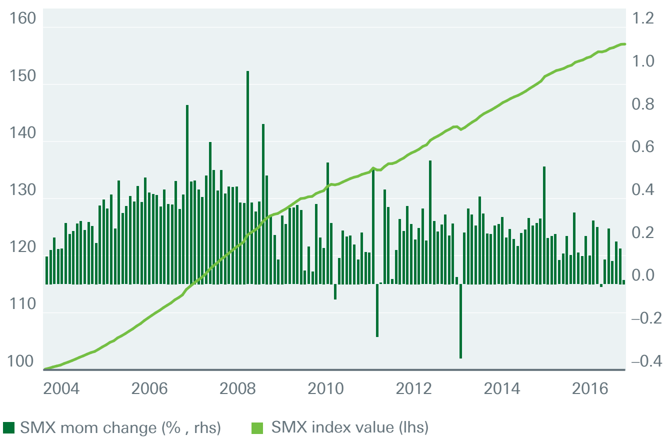
In an earlier study the World Microfinance Forum Geneva examined prospects for pension fund investment in the sector. One of the obstacles has been market size and the relatively small allocations to the sector from a portfolio perspective, typically under 1%. For some pension funds such a small allocation limits the impact from an overall portfolio diversification perspective. However, we would expect as the microfinance sector grows and capacity constraints ease that this will help to increase the sector's appeal from a portfolio allocation perspective.

According to the Global Impact Investing Network (GIIN) and other industry surveys, institutional investors expect sustainable/impact investments to constitute 5% of their total portfolio in the next 10 years with microfinance representing an important part of these investments. However, institutional investors generally require a high degree of transparency as to the risk-return proposition of specific investments as well as comparability with competing investment alternatives. To assess these risk-return characteristics of the microfinance sector we track the Symbiotics Microfinance Index (SMX).

The SMX index has become the reference benchmark for microfinance investments. Launched in 2003, the SMX index has included a mixture of fund managers (Blue Orchard, responsibility, Symbiotics, Credit Suisse, Triodos) and MIVs (Dexia, Wallberg). Constituent funds of the SMX index all have the majority of their assets invested in microfinance debt instruments.

We find that from a returns perspective the SMX index has displayed stable and predictable returns with low volatility. The performance of returns during the global financial crisis also reveal that the microfinance sector was more resilient to the economic downturn and from the gyrations of global financial markets than more mainstream markets such as bonds and equities. In addition, since its launch in 2003 the SMX index has only posted negative monthly returns on three occasions, or 2% of the time, and has displayed a relatively rapid recovery phase after such drawdown events, Figure 7.

Figure 7: The performance of the SMX-MIV debt USD index



Sources: Symbiotics, Bloomberg Finance LP (November 2016)

Data from the 2015 Symbiotics survey, which is based on a wider pool of MIVs such that it captures smaller MIVs, shows average net returns for fixed income MIVs averaging between 6.7% and 8.0% at their microfinance portfolio level and between 2.4% and 4.1% for investors over the 2010 and 2014 period. However, in the 2016 survey published in September last year which captured annual data for 2015, net returns for investors dropped to 1.9%, its lowest yearly return since the index's inception at the end of 2003.

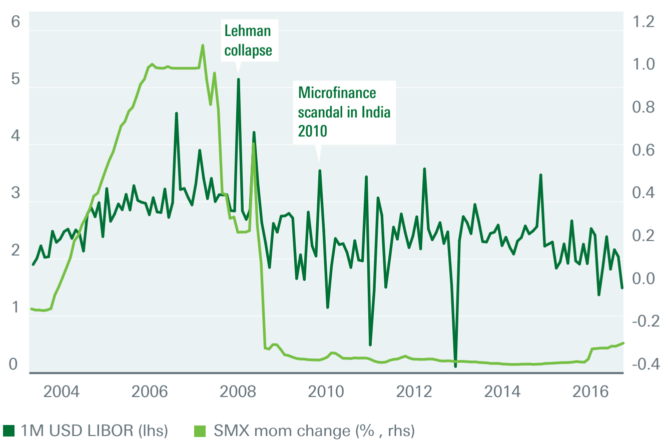
It is worth noting that the net returns for investors are after provisioning, management fees and other operational costs, which can vary substantially amongst MIVs. Generally, larger more granular MIVs may produce lower operating costs and more stable provisions over time, while management fees may depend on, for example, the investor base including retail. Symbiotics data are publically available to track the overall industry default rates for MIVs, which are very low. Write-offs averaged between 0.1% and 0.5% and overall loan loss provisions averaged between 1.0% and 3.0% over the last five years.

From a credit rating and yield perspective, we would compare MIVs to BB rated government and bank bonds, with current returns averaging 2.8% to 4.3% grouped by remaining maturity and assuming a direct investment into the portfolio of secondary market traded bonds. Note that this return would not factor in administrative and active portfolio management costs which, for a like-for-like comparison, would need to be deducted.

From a currency perspective, the expectation of a further depreciation in emerging market currencies against the U.S. dollar is a potential risk factor. In addition, many EM countries have had to contend with the significant swings in commodity prices over the past few years. Inevitably this has had an asymmetric effect on the terms of trade between commodity exporters and importers. From a regional perspective, lower commodity prices would tend to benefit most of Asia and Central America given their status as commodity importers and/or their strong trade links to the U.S.

The most significant home grown crisis to have hit the microfinance sector over the past decade has occurred in India, Figure 8. However, markets such as Nicaragua, Morocco, Bosnia, Bolivia and Pakistan have also experienced some form of credit crisis. According to a CGAP study there have typically been three common factors that have led to a crisis: (i) concentrated market competition and multiple borrowing; (ii) overstretched MFI systems and controls and (iii) an erosion of MFI lending discipline. Of the group, the events of 2010 in the Indian state of Andhra Pradesh probably sent the most shockwaves across the microfinance sector as over-borrowing and indebtedness in the province led to a broader repayment crisis in the world's largest microfinance market.

Figure 8: SMX returns, USD LIBOR and major drawdown events in the microfinance sector



Sources: Symbiotics, Bloomberg Finance LP (November 2016)

As mentioned earlier, encouragingly the microfinance regulatory environment has improved over recent years with greater efficiency and transparency for private sector investors. Indeed we find that more than two-thirds of developing and emerging markets have microfinance regulatory agents, in addition to some dedicated credit bureaus for MFIs. Furthermore, participants in the microfinance industry have rallied around a code of client protection known as the Smart Campaign, promoting an emphasis on the end client and on responsible finance. This better regulatory environment might help to explain the growth of institutional investors, which not only constitute the majority of MIV investors, but, are also the fastest growing segment among the various investment groups.

In terms of diversification, Figure 9 details the correlation of microfinance returns against benchmark fixed income, equity, commodity indices as well as money market rates over different time periods. We not only assess correlations since 2004, but, also before, during and after the global financial crisis to assess the sensitivity of sector returns in periods of extreme stress as well as to gauge how correlations have changed in a zero interest rate environment. We find that over the amend 2004-2016 period SMX returns displayed negligible or negative correlations with benchmark fixed income, equity and commodity indices.

Figure 9: SMX correlation with fixed income, equity and commodities

	DB U.S. Treasuries Overall Index	DBIQ Emerging Markets Bond Index	MSCI World Equity Index	MSCI EM Equity Index	S&P GSCI index
2006-2016	0.02	–0.10	–0.11	–0.07	0.01
Pre-crisis*	0.45	–0.12	–0.19	–0.14	0.29
During crisis	0.20	–0.45	–0.27	–0.34	–0.03
Post crisis*	–0.25	0.12	0.11	0.10	–0.01
Last 36 months	0.07	–0.37	–0.37	–0.50	–0.44
Last 12 months	0.27	–0.43	–0.53	–0.72	–0.47

* Pre-crisis ends on August 9, 2007; post crisis begins on April 2, 2009 after G20 fiscal expansion
Sources: Symbiotics, Bloomberg Finance LP, Deutsche Asset Management (Data as of September 2016)

4 | Conclusions

The microfinance sector has grown significantly over the past decade. While certain macro risks exist for the microfinance market, such as the after effects of the drop in commodity prices during 2014-2015 and the new political landscape in the U.S., we expect an acceleration in U.S. growth will be beneficial to those regions with strong economic and financial links with the U.S.. We would therefore see parts of Asia and Central America as the relative beneficiaries of these developments.

We are also witnessing the growing reach of the microfinance sector. Not only has the range of financial services expanded to include not just microcredit, but also the provision of savings instruments, mobile payment systems and micro-insurance. The variety of funding counterparties has also increased, with institutional investors now the fastest growing segment of the investor universe.

The microfinance sector is also benefiting from a more transparent regulatory environment, which we expect will facilitate further private sector involvement. Indeed the sector's appeal has been enhanced by its low correlation to traditional asset classes, such as bonds and equities and its resilience during the financial crisis. However, the relatively small size of the microfinance sector is a constraining factor for portfolio allocation although we would expect these constraints should ease as the microfinance sector matures.

Michael Lewis
Head of ESG Thematic Research
michael.lewis@db.com

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Michael Lewis
michael.lewis@db.com

Murray Birt
murray.birt@db.com