responsAbility

MICRO AND SME FINANCE MARKET OUTLOOK

Markets, risk-return profiles, impact

2018

PUBLIC PAPER 06

IN THIS PUBLICATION

- In 2018, global economic growth will accelerate, driven by developing markets.
- The recovery in commodity prices will be beneficial for growth and portfolio quality in major commodity exporters.
- Using a newly developed methodology, responsAbility has mapped key micro and SME finance markets in terms of financial sector coverage and medium term potential for cross-border financing.
- This analysis shows that most key markets, even those that are relatively mature, have considerable remaining potential for growth.
- Using a track record of nearly 15 years, responsAbility has compared historic default and loss rates to those shown by Moody's for different rating tranches.
- The result: MSME finance debt portfolios display similar historic loss rates to securities rated Ba3 by Moody's.
- Spreads for investments in such portfolios are in line with or higher than those of listed securities with a similar risk profile.
- The study also introduces a methodology for impact measurement based on the United Nations' Sustainable Development Goals.
- Together, the rating system and impact measurement are designed to provide investors with transparency on the risk-return profile of our offering and the impact of the portfolios measured according to the UN Sustainable Development Goals (SDGs).

Micro and SME finance:

Financial services provided by financial intermediaries including banks, microfinance institutions etc. to micro, small and medium-sized businesses in the form of credits, savings and the like. In the context of this publication: MSME finance in emerging and frontier markets.

CONTENTS

OBSERVATION

Over the course of nearly 15 years of funding micro and SME (MSME) finance institutions in the developing world, responsAbility has built a position as the leading private investor in the sector.

For the last eight years, we have been producing the Market Outlook, using our position, experience and network to outline the trends in financial sectors. During this time, our key markets have seen extraordinary change, compressing institutional, product and regulatory changes that occurred over decades or centuries in Europe into a few years.

This process has continued, and in some markets accelerated, over the last 12 – 24 months. Yet in the same period the pace of this evolution has been reflected among investors, with interest in the broader topics of impact investing and ESG analysis spiking. As a result, the appeal of MSME finance in the developing world as an attractive non-correlated private debt market has become even stronger.

Meanwhile, in the immediate term, global output is set to pick up once more, led by growth in the developing world.

With commodity prices recovering and growth accelerating in the majority of leading MSME finance markets, 2018 should mark an upswing in the overall economic cycle.

"The finding that spreads are similar, and recently superior, to securities rated at this level, Ba3, should encourage prospective investors."

This will clearly be to the benefit of growth and portfolio quality in many markets. At a more fundamental level, we also find that the underlying drivers of financial sector development remain strong in key markets. As such, the long term outlook for cross-border financing remains promising in most key markets.

In this context of evolution and opportunity, the ability to quantify risk and return in investee markets will be essential. Yet many frontier markets have only recently obtained sovereign ratings, while only 13 of responsAbility's 252 financial institutions debt investees are rated by a major rating agency. This data deficit remains a major source of uncertainty for many investors, inhibiting flows into the topic.

However, by examining the last ten years of our own operations, we can identify the precise incidence of defaults

> "For the majority of leading MSME finance markets, 2018 should mark an upswing in the overall economic cycle."

Roland Pfeuti

and losses, before comparing to those shown for securities rated by the major rating agencies. Our conclusion – that loss rates are equivalent to those experienced by securities rated Ba3 – is a significant step forward in quantifying the risk profile of MSME finance in the developing world, in a way that experienced investors would immediately understand at an early stage when problems are identified.

Our analysis also shows the value of high levels of diversification and close working relationships with investees, allowing us to intervene at an early stage when problems are identified.

Equally the finding that spreads are similar, and recently superior, to securities rated at this level, should be an essential component in encouraging prospective investors.

In combination with a new structure for impact measurement that demonstrates how each investment contributes to the Sustainable Development Goals (SDGs), we hope therefore to fill the information deficit, complementing market potential with hard data.

responsAbility is an organization founded with the ethos of achieving returns for our investors while using their money to achieve lasting, positive change in developing economies. The urgent need to encourage development has always been clear, as has the key role of financial sector development in achieving it.

Yet the results of our analysis also illustrate how MSME finance combines attractive yields at or above market rates with a solid and understandable risk profile. In doing so, we believe that we have once again shown the value of MSME finance as an investment topic, to the benefit of financial inclusion across emerging economies.

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MICRO AND SME FINANCE MARKETS

1. THE ECONOMIC OUTLOOK

Micro and SME finance in the developing world operates in markets that typically have little connection to the day to day volatility of mainstream capital markets. Nevertheless, the long term influence of global economic fundamentals can still be felt by MSME finance institutions. Different growth trajectories in key economic partners, or changes to prices for key exports, will affect GDP growth and currency performance. This in turn can alter the profitability and portfolio quality of the MSME financial sector.

MACROECONOMIC DEVELOPMENTS

GLOBAL GROWTH LED BY DEVELOPING ECONOMIES

After reaching its lowest point for seven years in 2016, global economic growth is expected to accelerate again in 2018, to 3.7 %.[1] This increase will occur despite the slowdown in developed markets, where growth will slow to 2 %.

Instead developing markets will drive expansion, a trend expected to continue until (and perhaps beyond) 2022, by which point the IMF expects annual growth for this group to have reached 5 %.

SURGING ASIA LEADING THE WAY

Nevertheless, the GDP outlook varies considerably by region. The emergence from recession of Brazil, Nigeria and South Africa has led to a rebound in Latin America and Sub-Saharan Africa as a whole. But while the trend for these two regions should continue in 2018, this will still be at much lower rates of growth than the Asia Pacific region, which will continue to boom despite a moderate slowdown in China.

COMMODITY PRICES RECOVERING

Commodity prices continue to be a major influence on growth levels in some developing markets. The moderate price recovery of 2017 is expected to continue in 2018, but not to anywhere near the levels seen at the height of the commodity cycle in 2011.

MONETARY POLICY UNCERTAIN

In terms of monetary policy, persistently low inflation data in the US has dampened expectations of aggressive rate hikes by the US Fed. Conversely, uncertainty over both the end date of European Central Bank (ECB) quantitative easing and the plan for unwinding asset purchases may add to interest rate volatility. As a result, the impact on emerging market currencies and investment flows is unlikely to match that seen in the 2013 “taper tantrum”.

CAVEATS REMAIN FOR 2018

2018 still contains the potential for downside shocks. These could include a sharper than expected slowdown for China, wide-reaching measures of protectionism by the Trump administration, or a major geopolitical confrontation. Such events would lead to lower global growth, lower commodity prices (due to reduced demand) and decreased risk appetite among investors.

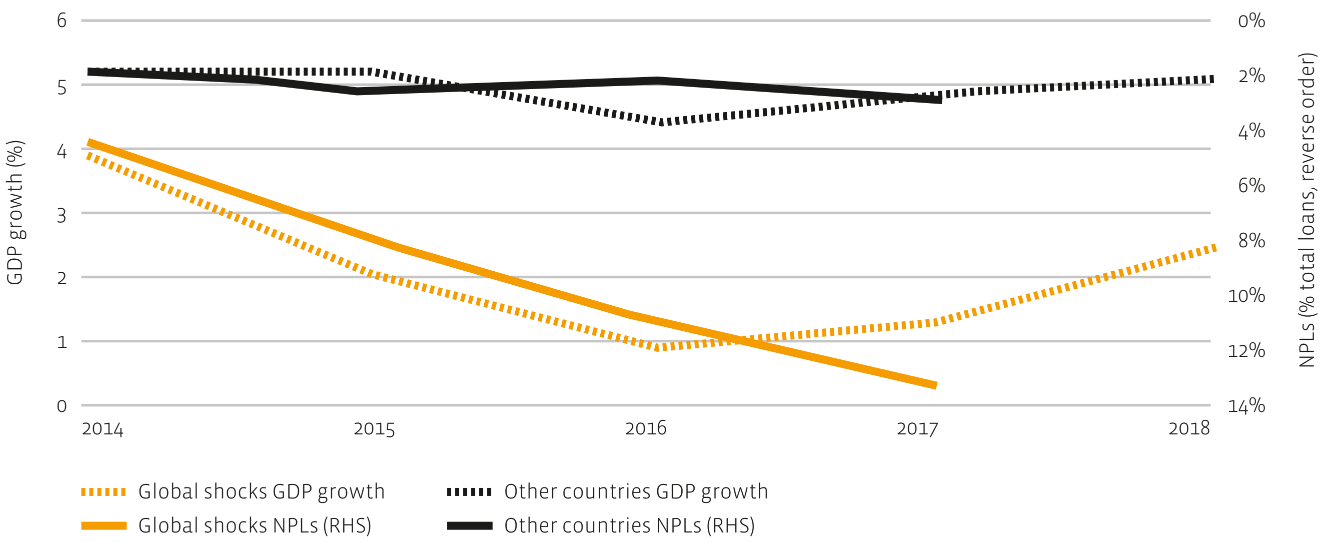
[1] IMF World Economic Outlook, October 2017

DEVELOPING ECONOMIES: THREE PATHS

Emerging economies have experienced differing impacts from global economic developments over the last few years, creating different subsets of countries.

DIFFERENT DEVELOPMENTS FOR COUNTRIES

As GDP growth recovers, portfolio quality (shown via the number of non-performing loans) is set to rebound in "global shock" countries and stabilise elsewhere.



Source: IMF, responsAbility Investments. Data for non-performing loans (NPLs) of the responsAbility MSME finance debt portfolio in top 40 markets used, weighted by exposure. NPLs defined as portfolio at risk for over 90 days, plus refinancing, as a percentage of gross loan portfolio.

1 GLOBAL SHOCK COUNTRIES: RECOVERING

While the impact of monetary policy will affect a few emerging economies highly dependent on short term investor flows (e. g. Turkey), commodity prices remain the most important driver of these external shocks. During 2014 – 2016, the countries most dependent on commodities (e. g. Kazakhstan, Nigeria, Russia) saw growth well below historic averages, illustrated by the line marked "GDP growth, global shocks" in the chart above. With global growth recovering and commodity prices rallying, this group of countries is expected to show a significant recovery in output in 2018 and beyond.

Lower growth and greater currency volatility in global shock countries thus led to lower profitability and higher rates of non-performing loans (NPLs) in the financial sector. The latter is shown in the chart by the line marked "NPLs, global shocks", which shows average NPLs as a percentage of total loans for responsAbility's top forty investee markets.

The rebound in economic growth should thus be reflected in financial sector performance, leading to a rebound in growth and a decline in NPLs.

2 OTHER MSME FINANCE MARKETS: STABLE

Conversely, 2014 – 2016 saw MSME finance countries outside of this category benefit from more stable currencies, higher growth and a better fiscal outlook. This positive operating environment was generally reflected by stability within the financial sector. On average this group is expected to benefit from the ongoing improvement in global growth and trade.

This category also includes many net commodity importers, such as Pakistan or Georgia. Here output should also remain stable, given that commodity prices not have moved dramatically, and remain well below their ten year high. As a result, any dampening effect on financial sector growth and portfolio quality should be limited or negligible.

On average, this group is expected to benefit from the ongoing improvement in global growth and trade.

3 DOMESTIC SHOCK COUNTRIES: REGULATORY THREATS

Some markets that are not necessarily vulnerable to global shocks have, however, faced domestic shocks, often due to regulatory measures. Kenya imposed an interest rate cap on banks, but not on lending-only microfinance institutions (MFIs), while Cambodia introduced caps for MFIs, but not on banks. Both markets are likely to see a reduction in credit to clients seen as the most risky and/or least profitable, typically SMEs.

Unorthodox policymaking also occurred at the end of 2016 in India with a sudden bout of demonetization (the removal from circulation of the two largest denomination notes). This measure reduced collection rates in MFIs in Q1 2017, with NPLs rising due to a shortage of cash. However, the effects have already started to dissipate, and the MSME finance sector appears to have weathered the impact well on average, helped by substantial demand for financial services and a strong economic context. In all three of these cases, the measures were almost impossible to predict, although in each case the impact was limited to one market.

KEY POINTS I

- Global growth is rebounding, led by emerging economies.
- Downside events include a slowdown in China and US protectionism.
- “Global shock” countries should benefit from a rebound in economic growth leading to improved profitability and portfolio quality.
- Other MSME finance markets should equally benefit from improved global growth and trade.
- Domestic shocks are often caused by policies and regulations and are therefore hard to foresee.
- “Domestic shock” countries may see a reduction in credit to clients due to regulatory measures.

MICRO AND SME FINANCE:

2. THE INVESTMENT UNIVERSE

Since its establishment in 2003, responsAbility has seen rapid change across many of its key markets. Yet among the ninety developing countries in which we operate, considerable variety remains in terms of market maturity, financial inclusion and depth of financial markets. For investors it is important to identify where markets have not only medium term growth potential, but will also continue to show strong demand for cross-border financing.

FINANCIAL SECTOR DEVELOPMENT: PROGRESS AND POTENTIAL

The last decade has seen extraordinary progress in terms of increasing financial inclusion and promoting financial sector development. Between 2011 and 2014, the proportion of the world's adult population with an account at a financial institution grew from 51 % to 62 %, an increase of around 700 million people.

Market infrastructure has also developed, although many markets have continued the trend of leapfrogging fixed infrastructure (ATMs, physical branches) to embrace mobile technology. Usage of mobile banking has increased significantly in many emerging economies, a trend likely to continue over the next few years as mobile broadband usage and coverage accelerates in the developing world.[2]

Usage of mobile banking has increased significantly in many emerging economies, a trend likely to continue over the next few years.

Nevertheless, many financial sectors in the developing world remain far behind developed economies in terms of financial infrastructure, accessibility and product range. The consequences of this gap will continue to be significant for economic development, and ultimately quality of life.

The reduction of this gap has been, and will be, accelerated by a combination of key drivers.[3]

FINANCIAL INCLUSION LEVELS

INDICATOR (% population 15+)	LOW & MIDDLE INCOME COUNTRIES		HIGH INCOME COUNTRIES	
	2011	2014	2011	2014
Account at a financial institution	41.3	53.1	84.8	90.6
Borrowed from financial institution	8.0	9.0	13.3	17.3
Saved at financial institution	17.6	22.5	40.9	46.7

Source: World Bank Financial Inclusion Index

Between 2011 and 2014, the proportion of the world's adult population with an account at a financial institution grew from 51 % to 62 %, an increase of around 700 million people.

[2] The total number of smartphone subscriptions combined for Latin America, Eastern Europe, Asia, Middle East and Africa are expected to increase by 61 % between 2017 and 2022 to nearly 6 billion. Data usage by smartphones is expected to increase six fold. See Ericsson Mobility Report 2017.

[3] "Measuring Financial Inclusion – Explaining Variation Across and Within Countries", Demirguc-Kunt & Klapper, 2012, World Bank

KEY DRIVERS FOR FINANCIAL SECTOR DEVELOPMENT

1 ECONOMIC GROWTH

Long term economic growth trajectories are important in terms of context, although the nature of this growth can also have an influence, with income equality and account penetration highly correlated.

2 DEMOGRAPHICS

Demographic pressures also play a major role in boosting demand, a trend likely to accelerate in many emerging economies in the next decade. The chart below shows a rapid increase in the number of people reaching working age in the developing world over the next 10 – 20 years. Greater urbanisation and a growing middle class will also heighten demand for financial services further.

3 A BETTER MARKET FRAMEWORK

The enabling environment for the financial sector is an essential ingredient for boosting the supply of credit and promoting financial sector development. A major component of this is the quality of regulations and the regulator itself. Although regulatory shocks can be growth negative for the financial sector, good, clear regulation (and sufficient oversight capacity at the regulator) can play a key role in reducing risk across the sector, encouraging investment and growth. Other enabling elements include the introduction of credit bureaus, also shown to boost credit levels and financial inclusion.[4]

4 TECHNOLOGICAL PROGRESS

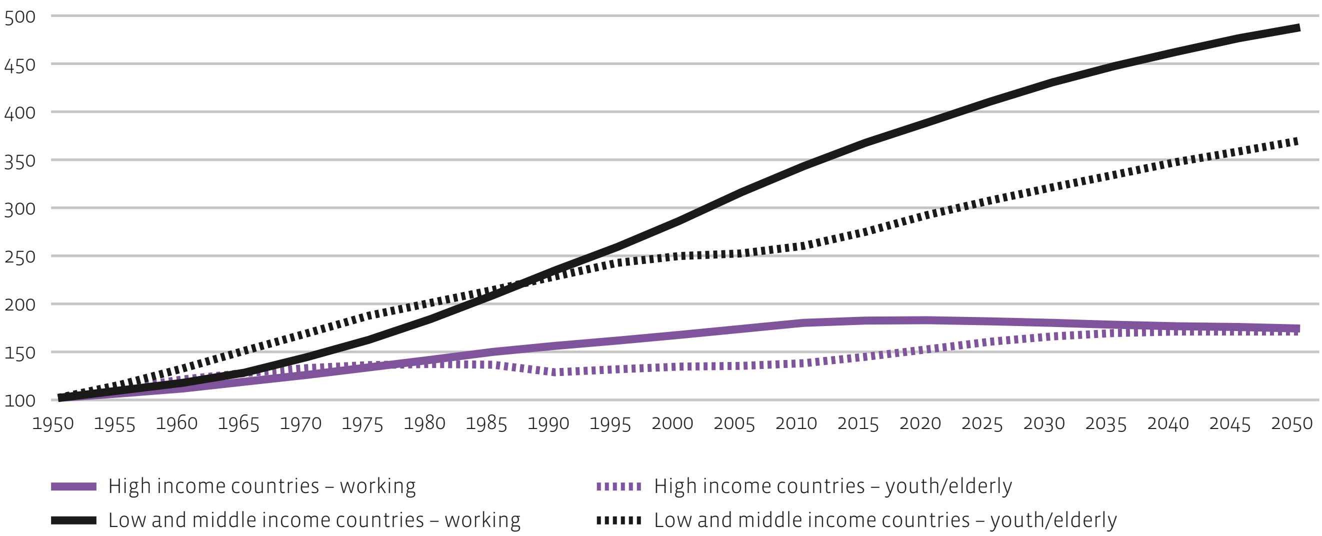
Technological progress can play its part, notably in the extent to which the spread and quality of connectivity permits mobile banking, especially in remote areas.

5 ACCESS TO FINANCING

In order to fulfill this demand, financial sector development needs to be fuelled by access to financing for financial institutions.

THE WORKING POPULATION IN DEVELOPING ECONOMIES WILL CONTINUE TO INCREASE AS A PROPORTION OF THE GLOBAL POPULATION, DRIVING DEMAND FOR FINANCIAL SERVICES

Growth for each category indexed at 100 in 1950



Source: United Nations DESA/Population Division.

[4] "The national credit bureau: a key enabler of financial infrastructure and lending in developing economies", 2009, McKinsey

ACCESS TO FINANCING: DOMESTIC VERSUS CROSS-BORDER FINANCING

CROSS BORDER FINANCING: DEMAND AND SUPPLY

In the early and middle stages of financial sector development, cross-border financing plays an important role, with local markets usually not deep enough to fund growth purely from domestic sources.

However, cross-border funding can also be important at a later stage, as domestic capital markets may still be unable to supply funding with longer maturities. In the last decade growth in cross-border funding has been fuelled by increasing recognition of microfinance as an investment topic, illustrated by growing private investment into the topic from USD 2 billion in 2006 to USD 13 billion by the end of 2016.[5]

Variation in this supply by market will also have an impact on pricing trends, with higher liquidity leading to credit spread compression in the preferred locations of private and public investors.

In the last decade, growth in cross-border funding has been fuelled by increasing recognition of microfinance as an investment topic.

FIRST SIGNS OF DOMESTIC FINANCING

This dynamic between demand and supply drivers for cross-border financing may be complicated by the rise of domestic funding sources. The development of local refinancing sources is a fundamental goal – and logical consequence – of financial sector development. However only a handful of MSME finance markets exhibit enough financial deepening to have evolved significant domestic debt markets.

The most obvious example is Peru, a mature microfinance market that has seen a major shift towards funding from domestic sources in the last two years. This evolution has been partly driven by greater sophistication and maturity among local MSME financial institutions (FIs). In addition, however, greater liquidity requirements for local pension funds has meant a surge in demand for local currency debt securities.

The beginnings of a similar trend can be observed in a few other markets, albeit not to the same extent. Armenian banks have started local bond issuances, while 2017 also saw the first local issuance for an MFI (Finca Armenia). In Cambodia, cross-border financing has taken a new direction, with pan-regional banks increasingly active in the MFI sector as shareholders and providers of financing.

More mature markets such as Brazil or Turkey already have strong local financial markets; here MSME FIs see cross-border financing mainly as a tool for diversification or for specific purposes (e. g. creating a green financing product).

[5] 2017 Symbiotics MIV Survey, September 2017

MARKET OUTLOOK – MAPPING POTENTIAL IN KEY MARKETS

(For methodology, see page 16.)

Source: responsAbility Investments. Size of bubble indicates relative size within responsAbility-managed MSME finance portfolio.

HIGH PLACEMENT POTENTIAL, HIGH MARKET COVERAGE.

COSTA RICA
More mature in terms of financial sector development overall, Costa Rica still has considerable potential in the SME finance and housing sector.

PANAMA

CAMBODIA
The microfinance sector in Cambodia has made considerable progress in terms of coverage, but the SME segment is still quite underserved. Despite an increasing ability to mobilise deposits, Cambodia still has the potential for significant growth in cross-border financing, with local refinancing capacity low.

GEORGIA
Coverage in Georgia has some distance to go, despite the substantial progress made in rural areas by MFIs. Placement potential is moderately high, with a strong regulatory setup but a limited market size: banking sector assets total USD 12 billion of which USD 350 million assets belong to microfinance banks, with USD 600 million assets in the microfinance sector overall.

ECUADOR

INDIA
With a large and underbanked population as well as favourable regulation, India is expected to remain a key placement market in the microfinance sector. However, the progress made in financial sector deepening means that opportunities for cross-border financing are increasingly with Tier II institutions: banks or Tier I MFIs now tend to use cheaper, domestic funding.

HIGH PLACEMENT POTENTIAL, LOW MARKET COVERAGE.

METHODOLOGY

By aggregating indicators based on the drivers discussed, we can attempt to map the current and future landscape for cross-border investors to MSME finance as shown on the map on the previous pages.

To show current market coverage for the financial sector, we can focus on two dimensions: depth of credit provision (shown by credit to the private sector as a percentage of GDP) and breadth of financial inclusion (proportion of the adult population with an account at a financial institution).

Indicators for future placement potential of cross-border financing can likewise be gathered in two groups, again based on the drivers listed above. Endogenous drivers, or general market characteristics, include indicators relating to demographic trends, size of the market, overall business environment, quality of financial regulation and projected economic growth. Other indicators are grouped under the theme of competition dynamics, based on responsAbility's experience over the last years. These include the current amount of cross-border financing, availability of domestic financing, pricing trends and overall growth trajectory of the market.

Having mapped these indicators for the ten largest MSME finance markets in responsAbility's portfolio, we are thus able to show the different stages and growth trajectories for each country. The outcome in terms of both placement capacity and financial sector coverage varies considerably across markets, and even across segments within markets.

Although this analysis focuses on the largest markets for MSME finance, investors in this topic are diversified across a much larger number of countries. Consequently a significant part of the portfolio of responsAbility and its competitors is located in other markets, many of which will be "high potential" markets. These are markets that are still underdeveloped (as seen in Central America and some parts of Sub-Saharan Africa), or specific segments in markets that are otherwise difficult to access or highly developed already (micro credit companies in China, for example).

The scale of financial sector development in many emerging economies over the last decade has been enormous. Yet there remains a considerable distance to cover before financial sector development can truly be said to have been achieved.

The model portfolio of microfinance institutions used by responsAbility to track sector performance over time showed loan portfolio growth of 6 % in 2016. In a more positive external environment, and with many major markets still showing significant unfulfilled potential, the short to medium term outlook for cross-border financing remains promising and could well exceed this rate of growth. As a result, investors such as responsAbility will continue to play an important role in the next few years, as many other markets (or specific segments within markets) push towards the goal of financial inclusion.

KEY POINTS II

- The different MSME finance markets vary considerably in terms of market maturity, financial inclusion and depth of financial markets.
- Economic growth, demographic growth, improved market frameworks, technological progress and access to finance are among the key factors that drive financial sector development.
- In the early and middle stages of financial sector development, cross-border financing plays an important role.
- As financial sectors develop, local refinancing sources typically develop.
- Even in more mature markets, cross-border financing remains important for funding, especially in terms of providing financing with longer maturities.
- For investors it is important to identify where markets have growth potential and strong demand for cross-border financing.
- By aggregating indicators based on the drivers of financial sector development, this study maps the landscape for cross-border MSME finance investors.
- The map shows that a significant part of the current MSME finance portfolio is located in "high potential" markets.

MICRO AND SME FINANCE INVESTMENTS:

3. EVALUATING RISK AND RETURNS

The growth of MSME finance as an investment topic has created increasingly greater demand for data. By studying the rate of default, we can quantify the level of risk for senior debt placed with MSME financial institutions as being in line with a Ba3 rating. At the same time, we can also put into context the returns achieved by portfolios of MSME finance debt.

CLOSING THE DATA GAP

In previous years impact investing has struggled against the perception that development investments are riskier compared to “traditional investments” or even “sustainable investments” (socially responsible investment, green bonds etc.).

This view is partly based on a data/knowledge deficit. In previous years, many key markets for MSME finance did not even have a sovereign rating from one of the three big rating agencies. Certainly many microfinance institutions (MFIs) and even banks did not have a rating and were not listed, while requirements for disclosing financial information varied considerably in many developing countries.

SOVEREIGN RATINGS NOW WIDELY USED

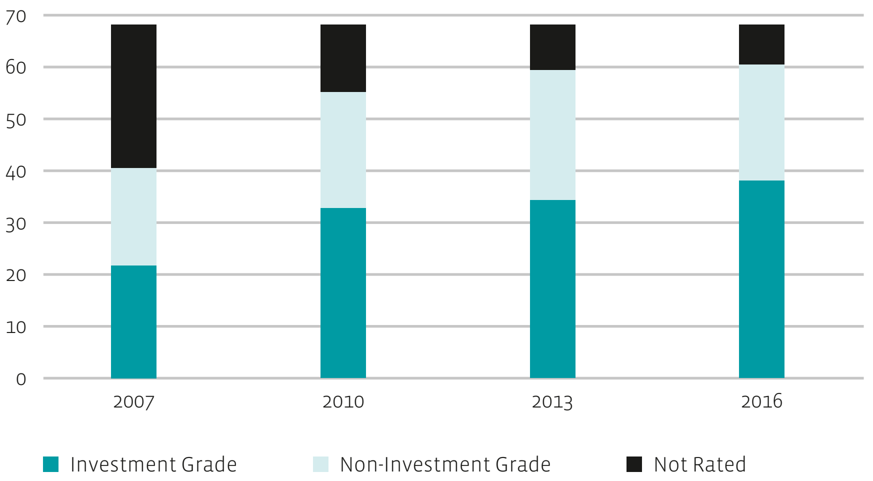
In some areas this has changed – most MSME markets now have a sovereign rating, while the quality of regulation has improved considerably, including in relation to the disclosure of information, requirements for external audits, capital adequacy requirements etc.

INSTITUTIONAL RATINGS STILL RARE

Nevertheless, only 13 of 252 financial institution debt investees in the responsAbility-managed portfolio are rated by one of the top three rating agencies. This limits the ability of most mainstream investors to properly quantify the level of risk for most development investments.

PROGRESS IN SOVEREIGN RATING COVERAGE

Over the past ten years, sovereign rating coverage for Micro and SME finance markets has increased from 41 countries to 61. 39 countries are rated as investment grade.



Source: Bloomberg

SOLID RISK PROFILE FOR MSME FINANCE

Despite the lack of publicly available data, investors such as responsAbility-managed funds have now been investing for a sufficiently long period to be able to analyse the rate of default and/or loss in their markets.

This allows us to benchmark losses against the loss rates published by rating agencies, suggesting a tentative rating for our space of investment.

In order to make the comparison valid, we have adopted the approach applied by leading rating agencies, in which the eventual losses are assigned to the year of default.

BASIS FOR HISTORICAL DEFAULT ANALYSIS

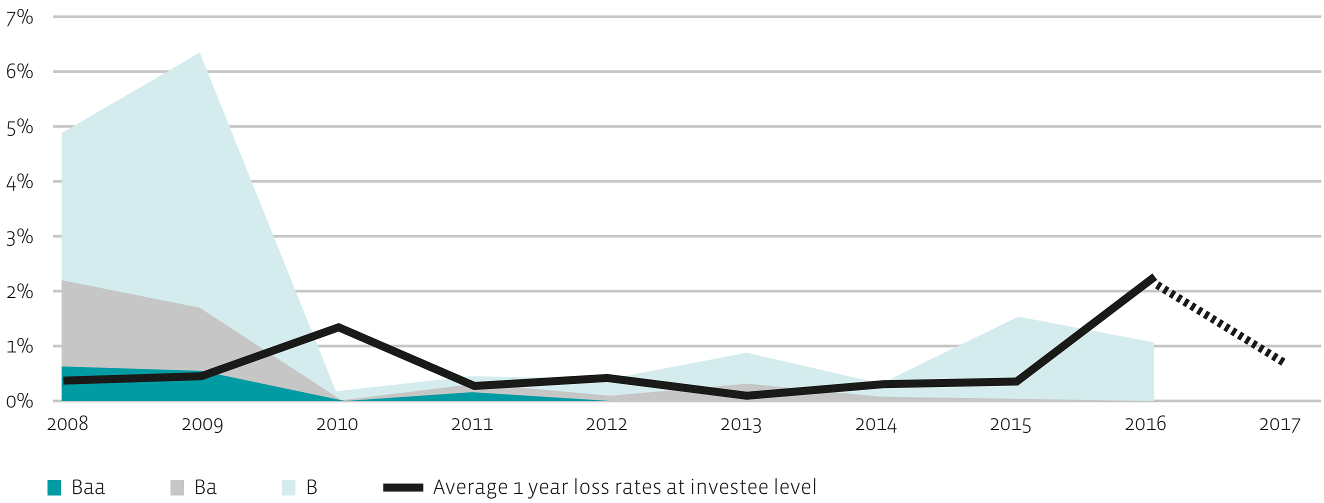
An analysis of financial institution debt investments over the last decade in responsAbility's longest standing fund, the responsAbility Micro and SME Finance Fund, provides an interesting insight into the degree of implied risk.

EQUIVALENT RATING: BA3

By looking at 1,752 transactions worth USD 3.3 billion, we are able to see that the realized losses of the fund since 2008 (shown as the black line in the chart below) lie between the losses experienced by Moody's B and Ba cohorts.

This would imply an equivalent rating for the fund's universe of around Ba3.

REALISED LOSSES FOR MSME FINANCE



The shaded areas show average loss rates for securities outstanding in that year, with different colours representing different ratings. The grey line indicates the loss rate under the same methodology for the largest responsAbility-managed MSME finance fund, with projected rate for 2017 shown as dotted line.
Source: Moody's, responsAbility Investments

RETURNS FOR MSME FINANCE COMPARE FAVOURABLY

With the degree of risk quantified, investors are able to compare returns from a portfolio of loans to MSME finance institutions with similar investments (traditional private debt or secured loans in frontier markets, EM corporates, etc.).

HISTORIC USD YIELD AT 6 %

Average credit spreads for responsAbility-managed MSME finance debt funds are currently around 450 basis points, resulting in a portfolio yield of around 7 % in investment currency, or around 6 % in USD (i. e. net of hedging costs). This bears very favourable comparison with publicly traded securities that have a similar risk profile, rating and duration: median spreads on 1 – 3 year emerging market bonds rated Ba by Moody's stand at 213 basis points, 236 basis points for EM corporate bonds.

SPREADS EQUIVALENT TO SECURITIES RATED BA3

Average spreads on responsAbility MSME finance debt products have historically kept between the median option-adjusted spread (OAS) recorded by Moody's for emerging market bonds rated Ba and B (see chart). In 2017, despite a slight decline, the average spread for responsAbility has exceeded that offered on riskier B-rated products. Some of this outperformance can be attributed to high barriers to entry for deal sourcing, as well as the "liquidity premium" offered by private debt. However, in the latter case this is provided via a "semi-liquid" fund structure, giving investors a more favourable balance overall.

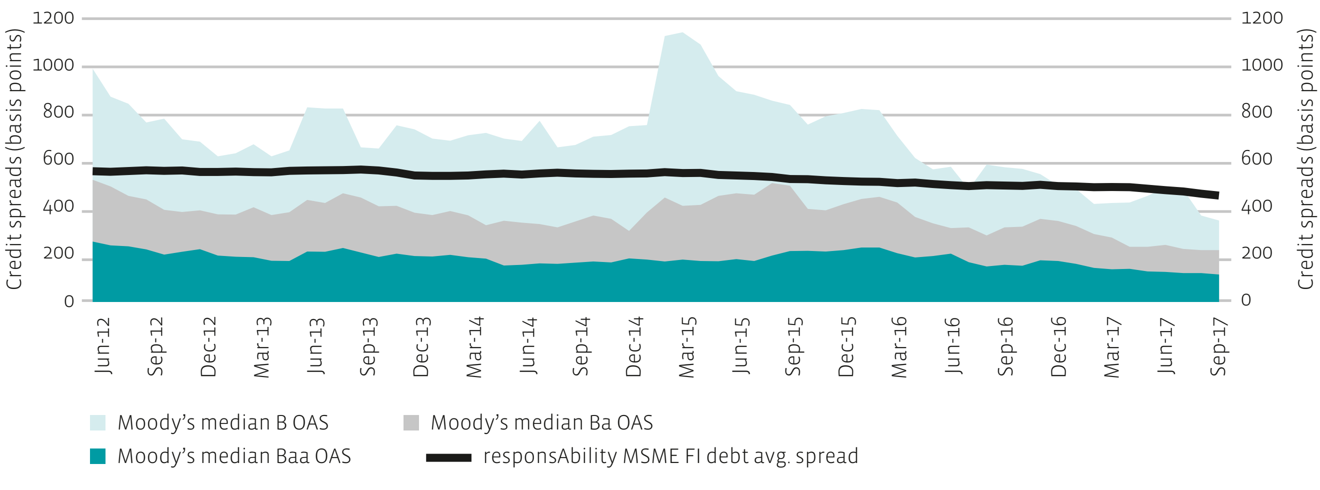
Global MSME finance debt portfolios also have an attractive risk profile. Sensitivity to rising interest rates is further reduced by having more than 30 % of the responsAbility MSME finance debt portfolio in floating-rate loans, as well as a short average maturity (2.3 years). Diversification within these portfolios is also high: the average number of countries invested in by four of the largest MSME finance funds stands at 57.[6]

LITTLE SENSITIVITY TO MARKET RISKS

Finally, MSME finance debt portfolios have little sensitivity to market risk. Admittedly, loans are usually valued at cost and held to maturity. Yet linkages between global capital markets and most developing economies are limited, a connection further weakened by the fact that end customers of MSME financial institutions are drawn from lower income segments of the population.

MSME FINANCE SPREADS CONSISTENTLY ABOVE 1 – 3 YR EM BA RATED MEDIAN

The chart illustrates the remarkable stability of MSME finance spreads compared to conventional EM bonds. The diminished correlation of MSME finance debt to traditional listed assets typically allows it to improve the metrics of any balanced portfolio.



Source: Moody's, responsAbility Investments. Comparison with Moody's median OAS for 1 – 3 year emerging market bonds for different ratings.

[6] 46 countries for the Blue Orchard Microfinance Fund, 40 for the Vision Microfinance Dual Return Fund, 61 for the responsAbility SICAV Mikro- und KMU-Finanz-Funds and 80 for the responsAbility Micro and SME Finance Fund.

ANALYSING THE ORIGINS OF DEFAULT

Further examination of the drivers of default, where it does occur, bears interesting fruit. Each incidence of default was assigned one or more causes during the course of the analysis.

"MACRO" ...

Some of these drivers can be categorised as "macro", which is to say an external driver linked to the political, economic or regulatory environment. This therefore includes lower GDP growth, currency devaluation, systemic banking sector shock and interest rate caps.

... VERSUS "IDIOSYNCRATIC"

Others can be described as "idiosyncratic" issues, specific to the investee itself. This includes issues relating to governance, underwriting standards, asset risk, fraud, business model and funding issues.

FEW DEFAULTS DUE TO ONLY ONE ISSUE

Our analysis shows that "macro" drivers by themselves are responsible only for a small minority of defaults, with the same true of "idiosyncratic" drivers. However, around three quarters of defaults are generally due to a combination of "macro" and "idiosyncratic" drivers.

To be more precise, while political/economic drivers are rarely sufficient by themselves to provoke a default event, they often uncover which organisations have inadequate standards of governance, underwriting or currency management, and therefore fail.

SUCCESSFUL USE OF COVENANTS AND MONITORING

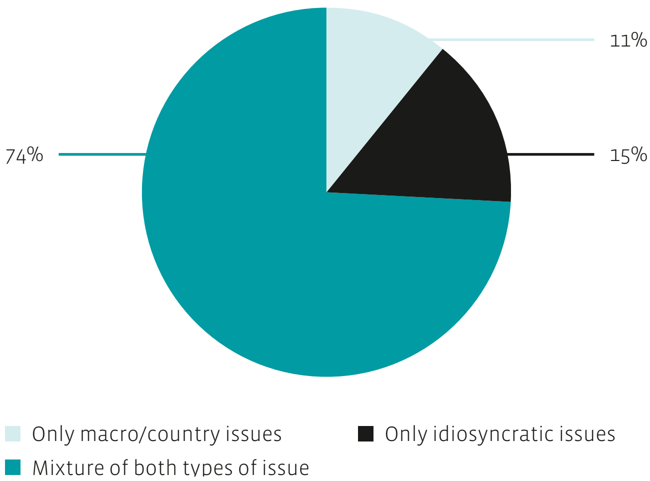
While defaults of publically traded securities typically follow missed payments, bankruptcy or breach of minimum regulatory requirements, the use of covenants and close monitoring allows organisations like responsAbility to take a more proactive approach with their investees.

Around half of responsAbility's historical defaults were identified at an early phase. In most cases, responsAbility was therefore able to set in motion a restructuring process with other lenders, steering financial and business decisions to maximise recovery rates.

Evidence shows that historic credit losses in the MSME finance universe have generally been lower than those of fixed income securities with an otherwise comparable risk profile.

DRIVERS OF HISTORIC DEFAULT FOR RESPONSABILITY-MANAGED MSME FINANCE DEBT PORTFOLIO (2003 – 2017)

An analysis of past defaults shows, that 74 % of all defaults occur due to a combination of macro and institutional issues.



Source: responsAbility Investments

KEY POINTS III

- The data gap in terms of quantifying and benchmarking risk/return remains a persistent barrier for many MSME finance markets and investors.
- An analysis of historic defaults and losses by responsAbility shows that historically, MSME finance debt investments have a risk profile equivalent to Ba3 under Moody's scoring.
- Returns are positive and either in line with, or higher than, those exhibited by listed securities with a similar risk profile.
- When defaults occur, they are typically driven by a combination of macro and institutional issues.

MICRO AND SME FINANCE:

4. MEASURING IMPACT

Increasing demand for information from investors in MSME finance portfolios is not limited to the question of financial risk/return. In addition, those interested in impact investing are looking for evidence that their investment is not harmful to, and is actively beneficial for, the society, environment and economy of developing countries. By ensuring that this is so, investors can be assured that their money is helping towards the long term success of the Sustainable Development Goals (SDGs).

WHY IS IMPACT IMPORTANT?

As an asset manager with a thematic approach, responsAbility seeks competitive financial returns and positive impact in each investment. This unique vision aims to create prosperity for investors, companies and developing economies.

To achieve a long-term positive outcome, development has to be based on a sustainable paradigm. Sustainable investing is an investment approach that considers environmental, social and governance (ESG) criteria in portfolio selection and management. On the one hand, ESG factors define a set of standards to screen investments and serve as a risk management tool. On the other hand, ESG analysis offers a positive selection process for investment opportunities.

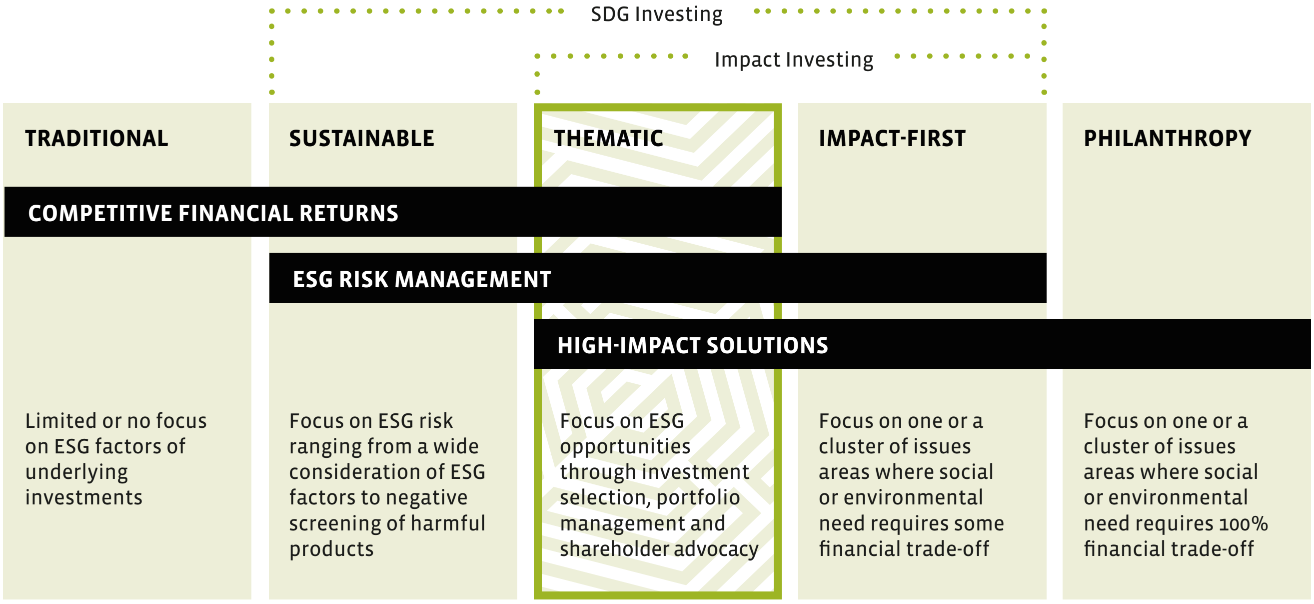
At responsAbility, we ensure that ESG issues are managed effectively by incorporating ESG considerations into every step of the investment process, from the initial assessment to the exit. Every sector and commodity has its own set of key ESG risks. responsAbility has developed appropriate toolkits to identify these risks and uses internal resources and/or the expertise of local or international consultants if required. ESG criteria form the basis of our investment strategy.

Thematic investing offers solutions to pressing social or environmental issues. Thematic investors consciously focus on one or a cluster of issues with the intention of generating a positive social or environmental impact.

New technologies increasingly disrupt established business models and blur the lines between traditional sector categories, offering a new view of investment opportunities. A thematic view offers access to trends such as clean technology, consumers, water infrastructure and agriculture, to name a few examples.

As an investor contributing to the SDGs, responsAbility aims to provide access to basic needs by financing companies that provide services and products to low-income groups. This strategy offers investment opportunities with risk-adjusted market-rate returns, without a trade-off of social versus financial returns.

**MICRO AND SME FINANCE INVESTMENTS WITHIN THE INVESTMENT SPECTRUM:
COMBINING COMPETITIVE FINANCIAL RETURNS WITH HIGH IMPACT**



Source: European SRI Study 2012/Bridges Ventures SDGI Signatory Consultation 2016

WORKING WITH SIX IMPACT THEMES

responsAbility has developed a framework that clusters the United Nations' 17 Sustainable Development Goals into six impact themes, bringing simplicity to a complex agenda for global change. These themes focus on the objectives that investors wish to see realised through their investments.

1 BASIC NEEDS

Basic access to food, water, energy, shelter, sanitation, financial services, communication, transport and health among low income households

2 WELL-BEING

Enhanced health, education, justice and equality of opportunity for all

3 DECENT WORK

The creation of sustainable economic growth by stimulating job creation that treats the workforce correctly and does not harm the environment

4 HEALTHY ECOSYSTEM AND RESOURCE SECURITY

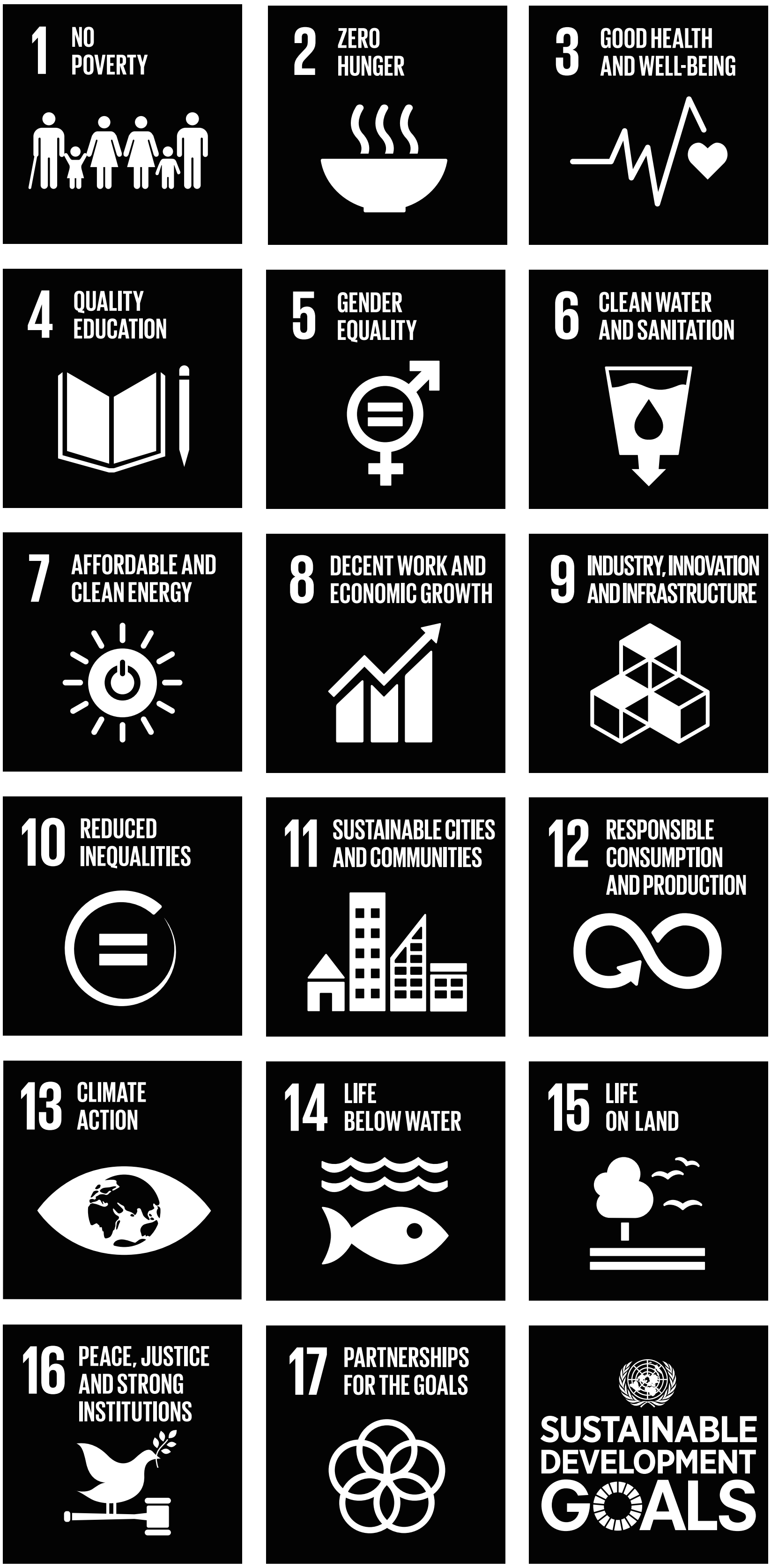
Maintain ecologically sound landscapes and preserving natural resources

5 CLIMATE STABILITY

Limiting greenhouse gas (GHG) emissions to limit a global temperature rise to under 2 °C

6 MARKETS AND INFRASTRUCTURE

Building resilient, inclusive and sustainable markets and infrastructure

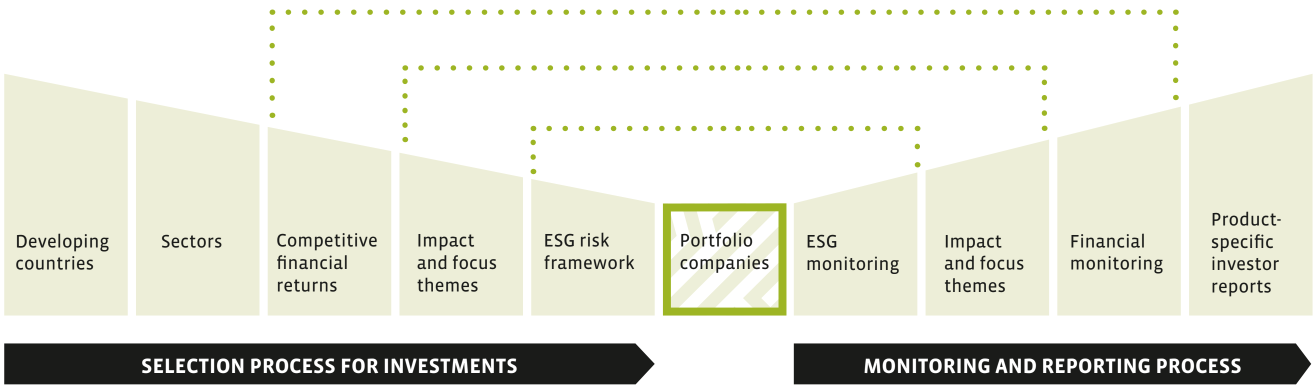


Source: responsAbility Investments, United Nations, University of Cambridge, Institute for Sustainability Leadership

MEASURING IMPACT AT PORTFOLIO LEVEL

Investments in micro and SME finance providers in developing countries – like development investments in general – can be complex. With a solid process and in-house experts, every investment, through selecting and monitoring, remains aligned with our investors' and clients' interests focusing on both financial returns and impact at each stage of the investment process.

IMPACT MEASUREMENT AS INTEGRAL PART OF THE INVESTMENT PROCESS



Source: responsAbility Investments

IMPACT MEASUREMENT APPLIED: CREDO, GEORGIA

Credo, a microfinance institution in Georgia, has been an investee of responsAbility for more than ten years, and has been active for 20 years. As the leading microfinance institution (MFI) in Georgia, it has 59 branches catering to 222,000 borrowers with an average loan size of USD 790. In addition, this year Credo received a full banking license, enabling it to start providing savings products.

The impact of Credo can therefore be viewed across many areas crucial to development in Georgia:

BASIC NEEDS
Credo provides a range of financial services to parts of the population typically excluded from the financial sector, providing credit to tens of thousands of entrepreneurs from low income households.

DECENT WORK
Credo's impact is particularly significant in terms of female and/or rural clients. 61 % of Credo's USD 175 million portfolio is located in rural areas, while 48 % of borrowers, or 106,000 people, are women, mostly from low income households.

WELL-BEING
As a company, Credo provides formal employment to parts of the Georgian population that are otherwise under-represented in the workforce. Both Credo as a company and the MSMEs that it finances contribute to tax revenues, increasing the government's ability to provide key services.

MARKETS & INFRASTRUCTURE
By providing financial services to SMEs and low income households, Credo is also sponsoring financial sector development and catalysing economic growth overall.

KEY POINTS IV

- ESG criteria are increasingly being adopted by mainstream investors.
- Enhanced impact measurement plays a crucial role in identifying investees that have a positive impact.
- responsAbility works with a framework that clusters the UN Sustainable Development Goals into six impact themes and measures them.
- Through a detailed analysis, every investment focuses on both financial returns and impact.
- As a result, investors can see how every investment contributes to the realisation of the SDGs.
- The example of Georgian microfinance bank Credo shows how the framework is applied.

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ABOUT RESPONSABILITY INVESTMENTS AG

With USD 3.3 billion of assets under management that are invested in over 550 companies in 97 countries, responsAbility Investments AG is a leading asset manager in the field of development investments. responsAbility-managed investment vehicles provide private debt financing and private equity to firms in emerging economies and developing countries. Founded in 2003, the company is headquartered in Zurich and has local offices in Bangkok, Hong Kong, Lima, Luxembourg, Mumbai, Nairobi, Oslo and Paris. Its shareholders include a number of reputable institutions in the Swiss financial market and its own employees. responsAbility is regulated by the Swiss Financial Market Supervisory Authority (FINMA).

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