The WSAS Microfinance Institutions Shareholder Value Indexes

Methodology, Definitions, and Practices

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Contents

About Wall's Street Advisor Services

Disclaimers and Copyrights

The WSAS Microfinance Institutions Shareholder Value Indexes – Introduction

The WSAS MFI Shareholder Value Indexes (WSAS MFI SVIX) are the first consistent measures of changes over time in the value of shareholders' investments in the equity of a broad sample of microfinance institutions (MFIs). No other such measures exist.

The WSAS MFI SVIX consist of a series of annual 'Vintage Indexes' (indexes measuring changes to shareholders' value, by year of inception of their investment in a set of MFIs), and a Composite Index (blending investment results across the annual Vintages).

The WSAS MFI SVIX provide institutional investors such as pension funds, foundations, and endowments, as well as fund managers and researchers in general, with much-needed benchmarks of MFI shareholder value performance.

The MFIs selected for inclusion in the Indexes are screened for their equity investment activity, for their financial transparency, and for their geographic spread, characteristics commonly sought by investors.

As investors' interest in microfinance in developing countries grows, the WSAS MFI SVIX will play an invaluable role in providing a history of changes to financial value of equity investments in this nascent asset category, to which investors, their advisors, investment bankers and other researchers can look for benchmarking and analytic purposes.

It is important to recognize that the measurement of changes in "MFI shareholder value" will necessarily be approximate, at best. There are many good reasons for this – the absence of complete information about shareholder actions, the necessity of some assumptions about timing of transactions, the aggregation and resultant 'smoothing' of individual transactions, and the use of exchange rates to translate inputs and results into USD which may not have occurred in reality, are principal among these.

 The variety of investors and the timing of their individual transactions mean in practice that most MFI shareholders, even within the same MFI, likely experience different changes in financial value over the life of their respective investments, and that these results will also vary from WSAS MFI SVIX result for the corresponding investment period.

It therefore should not be expected that the WSAS MFI Shareholder Value Index series can attain a precision usually attributed to indexes of financial assets where 'one price' prevails and where detailed information around transactions is fully disclosed. The series' results will not be 'replicable', and the methodology shouldn't be seen as an 'investable' model.

But the series does provide benchmarks of MFI shareholder value performance whose results will approximate what investors achieved in the past, and provide the basis for accumulating historical performance characteristics of the important and fast-growing niche asset category, MFI equity.

Introduction to Microfinance and the Evolution of Microfinance Institutions [1]

Microfinance, defined as the provision of financial services in very small individual transaction amounts to poor people in developing economies, has attracted attention in recent years from a growing range of supporters as an effective means to promote human well-being and grass-roots economic development, which may also provide attractive returns on equity for investors in the service providers.

Specialized financial institutions, generically called 'microfinance institutions' (MFIs), evolved from humanitarian efforts to meet the financial needs - principally the credit needs - of very poor people in developing economies. Grameen Bank in Bangladesh is one widely-recognized name in this regard.

MFIs take many possible legal forms, ranging from non-profit, non-governmental organizations; member-owned cooperatives/credit unions; non-bank financial institutions; and licensed, deposit-taking banks, with the latter two forms most commonly being shareholder-owned.

Experience has shown that MFIs, to be truly effective in the long-term in meeting the needs of their communities, need to be financially self-sustaining; that is, they need to produce a financial surplus to their operating and funding costs.

Since the poor people MFIs serve typically have no access to income in foreign currencies (except maybe for remittances from overseas), their borrowings needs and savings are in local currencies. Thus, MFIs ideally want to have easy access to domestic savings and/or local credit markets, in order to avoid foreign exchange exposures as well as to grow their businesses.

At the same time, there is a fundamental drive to achieve 'scale of outreach' in microfinance, by which is meant that MFIs should strive to serve as many people as they can without putting their financial self-sustainability at risk.

Since local currency credit markets are often poorly developed or simply not open to MFIs, and as savings in very small individual accounts takes time to aggregate to institutional levels , MFIs have historically relied heavily on overseas investors for loan funds. And in an effort to start domestic savings deposit mobilization, MFIs are ever more frequently seeking banking licenses required to begin accepting deposits from the public..

But both of these means of expanding funding require MFIs to increasingly raise equity capital, in order to meet banking license requirements for minimum equity capital, as well as to achieve and sustain prudent leverage ratios.

Equity Investment in MFIs [2]

While there were several far-sighted institutional equity investors in MFIs before 1995, the period since 2004 has seen the start of a boom of equity investment in MFIs which shows signs only of accelerating. There are a number of reasons for this trend.

Reasons for the growth in equity investing in MFIs are:

- The demonstrated and enduring good "Return on Equity" (ROE) performance of high-profile MFIs[3];
- T he very positive publicity surrounding microfinance and "Bottom of the Pyramid" business opportunities in developing economies, such as the UN's Year of Microcredit (2005), the awarding of the Nobel Peace Prize to Dr. Muhammad Yunus and Grameen Bank (2006), and the favorable feature articles on MFI results in Forbes magazine[4] (2007) ;
- The success of initial public stock offerings by MFIs such as CompartamosBanco and Financiera Independencia (Mexico -2007), and
- The growing equity capital needs of MFIs (as established ones grow, new ones are launched, and non-profits are 'transformed' into shareholder-types), creating investment opportunities of fairly large sizes.

Further, studies have indicated that the recent financial results of MFIs ' operations tend to be largely insulated from domestic economic downturns, and that their financial results have been largely uncorrelated to those of asset classes which are commonly part of investors' portfolios, suggesting MFI equity investment can help diversify the sources of risk and return to those portfolios[5].

At a high level, one can also point to the very favorable experience during these years of stock market and private equity investors in emerging markets, and the concurrent growth of the socially responsible investment movement, which opened new investors to the microfinance story .

Emerging stock market indices for instance outperformed their counterparts for the US and other developed economies for the period 2000-2009 by 13.3 and 11.6 percentage points *per annum* on average in USD terms, respectively. [6] Emerging market equity fund inflows surged throughout most of the decade, to reach $80.3bn in 2009, according to research group EPFR Global. That was the highest influx since EPFR started tracking the data in 1997, and beat the previous annual record (for 2007) by $25.9bn.

Private equity (PE) flows to emerging markets businesses also experienced strong returns and strong growth in assets in the period.   A recent report for PE investment for emerging markets companies, from International Finance Corporation (IFC), cited annualized average returns for the Cambridge Associates EM PE Funds Index's top quartile for the period 2000 to March 2009, as 9.4%. [7] Private Equity funds which focused on emerging market companies raised almost $200bn. over the period.

 Finally, one must consider the expansion and acceptance of the socially responsible investment industry in the period, as part of the broad 'enabling environment' for equity investing in microfinance. According to reports from organizations such as the US Social Investment Forum, the UK Social Investment Forum, Eurosif, and ASrIA, socially responsible investment funds performed as well or better than their unscreened counterparts, while their assets under management bloomed to over US$5,000 bn. in the decade[8]. As much as US$ 300 bn. of these funds have been deployed to the emerging markets.

In short, it seems equity investors "could do well while doing good" by investing in carefully selected MFIs, or simply do well financially, if doing good wasn't an investment requirement.

Investors have obviously responded. A survey of the microfinance funds industry by the MFI rating and information services company MicroRate, using 2008 data for 68 microfinance investment vehicles (MIVs)[9], found that such MIVs had about US$ 490 million in equity investments, compared to about US$ 78 million in equity from specialized MIVs in 2005.

The organization Consultative Group to Assist the Poor (CGAP), using different definitions of MIVs/investors (including development finance institutions not covered by MicroRate), found about US$ 1.5 bn. committed in equity by the end of 2008. This compares to CGAP's findings of US$ 370 million in equity at the end of 2006.

It should be pointed out that the figures cited above are for only funds specializing in microfinance investing, but the growing participation of general private equity funds and mainstream financial institutions in MFIs has been an important feature in the period, one that most observers would like to see expanded..

Standard Features, Terms, & Index Practices

The basic steps involved in constructing the WSAS MFI Shareholder Value Indexes are:
- Measuring "MFI Shareholder Value";
- Selecting MFIs for the Indexes' coverage ;
- Grouping MFIs' shareholders' investments into "Investor Vintages" by the period in which their investments are made; and
- Measuring changes in Shareholder Value among the Investor Vintages in order to generate Index levels.

What is "MFI Shareholder Value"? – Terms defined

What is meant by "MFI Shareholder Value", for index purposes?

WSAS uses "Shareholder Value" in the classic sense, as a measure *of financial value*. It considers the total accumulation of value (or loss) an investment generates for investors.

For index purposes, WSAS does not include, in any way, the non-financial values which many investors in microfinance seek to maximize, such as the humanitarian contributions an MFI may make in poor people's lives as a result of their services. The latter is an important consideration for many investors in microfinance, and many leading practitioners argue MFIs' financial results should be constrained as much as possible/practicable, in favor of the poor clients.[10]

But at present, at least, there are few commonly accepted measures of MFIs' social performance and related time-series data sufficient to include these in index calculations[11]. Once such information is in place, WSAS would consider how it might incorporate these into the indexes' results.

WSAS also does not consider "shareholder value" in its broadest sense, which includes how much financial value such forward-looking intangibles as brands, company reputation, and stakeholder relationships add to (or subtract from!) the value of shareholders' equity. Again, this is principally due to measurement problems.

For Index purposes, then, "Shareholder Value" can be summarized as the cumulative result of the cash flows which equity investors in an MFI experience in a period, with book value owned at the end of any particular period as the 'terminal value' for the period.

In the context of the principally private equity investing approach used for MFI investment, equity investors' outflows consist of:
- Initial negotiated buy-in prices, and
- Subscriptions to capital increases, typically rights issues for current shareholders or capital expansions, but also negotiated purchases from other current shareholders representing shifts in ownership between Investor Vintages.

Equity investors' inflows are determined by:
- Cash received as cash dividends;
- Increases (losses) in their share of the company's book value arising from net income (net losses) from MFI operations;
- Increases (losses) in the value of their share of the company's book value arising from dilution of their ownership from new issues of shares (information which is typically embedded in audited financial statements), and
- Proceeds arising from sales of their equity positions (usually negotiated and frequently not publicly disclosed) when no new shares are issued. Such transactions are often called "secondary sales".

To these elements of shareholder value, one must also add the impact of exchange rate movements on value, especially when combining information across borders.

The table below illustrates the three fundamental steps required to determine an MFI's Shareholder Value, and how SV can be apportioned among Investor Vintages, using simple figures.

The three fundamental steps are:
- Assemble as much data about MFI ownership, capital actions, and cash flows, as possible;
- Apportion the ownership rights to annual 'Investor Vintages'; and
- Calculate the changes in the MFI's SV over the period (one year) and how much of the changes to apportion to each IV.

Illustration - Determining Shareholder Value (SV) - Results for one MFI's Investor Vintages 2004 & 2005				
Step 1: Assmble basic MFI financial data				
Items	End 2004 ->	Transactions during 2005	End 2005	Notes on Items
Total Shareholder Capital	$1,000	$2,000	$3,000	Capital increase from New Investor in 2005 @ 2x 2004 book value = creation of Investor Vintage 2005
Shares in issue	100	100	200	
+ Net Income in 2005		$200	$200	
= Total Book Value Equity 2005			$3,200	
+ Cash dividend pd. from 2004		$100	$100	
= Total Shareholder Value	$1,000		$3,300	
Step 2: Apportion Shareholder Value among Investor Vintages (IVs)				
	End 2004		End 2005	
IV 2004's Book Value	$1,000		$1,600	IV 2004 diluted to 50% ownership via capital increase
shares owned	100		100	
+ Cash dividend received		$50.00		Assumes half of annual cash dividend
IV 2004's SV at end-2005	$1,000.00		$1,650.00	Increase due to new capital, earnings, & cash dividend
Change in IV 2004's SV in 2005			$650.00	
IV 2005's Shareholder Value				
Shares owned Expansion	0	100	100	IV 2005 buys 50% of MFI via capital increase
Capital paid-in		$ 2,000.00		
Total Cash dividend received		$50		Assumes half of annual cash dividend
IV 2005's SV end-2005			$1,650	= 50% share of MFI 2005 Book Value + cash dividend received
Step 3: Calculate Changes in Investor Vintages' SV & Composite Results - 2005				
IV 2004	65.0%			$1,000 in capital produced $1,650 Shareholder Value by end-2005
IV 2005	-17.5%			$2,000 in capital produced $1,650 Shareholder Value by end-2005
Composite Result	10.0%			$3,000 in capital produced $3,300 Shareholder Value by end-2005

Grouping MFIs' Shareholders' Investments into "Investor Vintages"

For purposes of measuring changes in "Shareholder Value", the Index methodology recognizes that shareholders in an MFI will experience different results depending on the terms and timing of their entry and exits into the capital of the MFI, but that such information isn't commonly available except as aggregated in MFI financial statements. Therefore, shareholders' investments are grouped into an 'Investor Vintage' by the year when they first invest as an MFI's shareholder.

So for instance, all shareholders present in the base year in which an MFI enters the Index are deemed members of the MFI's Shareholder Investor Vintage for that year (symbol = S^0).

Investors which enter Index MFIs subsequently are grouped together in the period they enter and are designated S^1, S^2, S^3, etc. to S^n (S^n signifying the nth Investor Vintage in an MFI's Index life).

It is important to remember that not every MFI has new investors every year, so that some MFIs may skip years between S^0 and S^1 for instance. Also, an Investor Vintage can go out of existence – for instance, S^0 may sell-out completely to a new set of shareholders in subsequent years.

Users of the Indexes must remember that aggregation of shareholders into Investment Vintages means that individual shareholder results, even at the MFI level, will likely differ from the Investor Vintage's results.

For example, members of an Investor Vintage are assumed to act in unison when a corporate action takes place, while in reality some members of an Investor Vintage may decline to participate while other members do. An example might be the secondary sale of shares, when some shareholders 'cash-out' completely while others sell none or only part of their shareholdings.

The WSAS MFI SVIX methodology assumes Investor Vintage members participate in corporate actions proportionately to their ownership level and eligibilities. If WSAS has information otherwise, it will attempt to have the data reflect the facts.

Currently, the WSAS MFI SVIX series are developed from annual audited statements only, so Investor Vintages are constructed 'by year' only. Future improvements in MFI disclosure, extending to detailed semi-annual and/or quarterly public statements, will allow the Series to be produced more frequently and in finer detail.

Selecting MFIs for Index Inclusion – the MFI Selection Year
As mentioned earlier, MFIs take many legal forms, and a notable feature of the industry is that new shareholder-based institutions are being created all the time, or are being transformed from NGOs to shareholding entities. In addition, many MFIs have high growth rates and require additional equity capital to prudentially sustain such growth.

So, for the WSAS MFI SVIX to be as broad and representative as possible, MFIs are considered for inclusion in the Indexes on an annual review basis. That is, every year, a list of MFIs (those reporting to MIX Market) is reviewed for eligibility, and MFIs are added to coverage. For purposes of tracking when MFIs first become members of the index, they are grouped into an "MFI Selection Year".

For consideration for inclusion in the WSAS MFI Indexes, MFIs must have the following qualities:

-   They must be shareholding-type companies - banks, NBFIs, or rural banks - listed in the MIX Market;

- They must have a MIX Market quality-of-disclosure designation of "4 Diamonds" or better – that is, the MFI must have issued audited financial statements for the period under review [12];
- They should have total equity capital in US$ terms such that 20% of that amount is equal to or greater than the median amount of equity investments made in the review year, as recorded in WSAS' database of MFI equity investments[13];
- At the time of review for inclusion, the MFI should not be 95% or more owned by one party which has expressed or demonstrated its intention to retain that level of control; and assuming the preceding qualifications are met,
- Preference for MFI inclusions will be made for purposes of increasing the number of countries covered, maximizing the number of microcredit clients served, and representing the share-denominated MFI universe.

MFI Investor Vintages, and their inclusions in the MFI SVIX Composite Index

MFIs that are constituents in one MFI Selection Year may have shareholder value changes included in subsequent years' MFI SVIX, if they have new Investor Vintages formed in subsequent periods.

For instance, the MFI SVIX 2005 has a base period of 2004. The only Investor Vintage contained in the Selection Year 2005 Index, throughout its history, will be that present at the end of 2004. Any Investor Vintages subsequently created in MFIs from Selection Year 2005 will have their results added to the Investor Vintage of the year they are created, and carry through in that Index throughout its history. In other words, portions of an MFI's results may be represented in several annual Indexes, as Investor Vintages are formed.

The MFI SVIX Composite includes all Investor Vintages' results, so all MFIs and their related Investor Vintages are carried in the SVIX Composite from when they become represented in any Vintage Index. The MFI SVIX Composite Index therefore represents the dollar-weighted results of all investors in all the selected MFIs.

Deletions from Index Coverage

MFIs may be deleted from Index coverage for any of the following reasons:
- The MFI has gone out of existence through merger or bankruptcy;
- The MFI is deemed to have ceased being a microfinance institution in practice[14]; or
- The MFI has somehow changed it corporate form from a shareholder-based entity.

Company & Country Exposures

The WSAS MFI SVIX Indexes recognize that investors face constraints which should be reflected in operational benchmarks, but that they also want strategic benchmarks that comes as close as possible to representing the 'market opportunity'.

For operational benchmarks, investors typically must consider their respective prudential (or regulatory) diversification needs/requirements, such as individual company exposure limits and country exposure limits. Other operational requirements may include maximizing spread of investments among target countries or regions.

A strategic benchmark however represents the allocation and performance of the complete 'opportunity set'. If one or two MFIs were very large or most of the eligible MFI equity is in India or Peru, for example, such a benchmark would tilt towards such concentrated exposures.

The WSAS MFI SVIX's MFI Vintage selection guidelines are designed to balance the operational and strategic benchmark needs, but with an inclination to the strategic benchmark category.

 As the Index series gains public exposure, user feedback will be factored into the MFI selection guidelines.   It is also possible that the series can be expanded to provide alternative measures, including such things as regional or country benchmarks, and/or 'balanced scorecard'-screened MFIs.

Methodology for Compiling the Index Series
When first considering the creation of the Index series, WSAS started from 2 basic assumptions:
- That Index results should be dollar-weighted, and
- That there wasn't a sufficiently geographically diversified and broad 'critical mass' of MFI shareholder equity much before 2005.

The WSAS MFI SVIX Annual Vintage series
The WSAS MFI SVIX annual Vintage results represent the value-weighted changes in shareholder value for the Investor Vintage in each MFI present from the base value of the MFI Selection Year (for newly selected MFIs), and for the Investor Vintages formed that year in MFIs from previous Selection Years .

The WSAS MFI SVIX series is built from the Selection Year and Investor Vintage-result level, up. That is:
- First, as outlined, WSAS selects MFIs each year on the basis of the guidelines already outlined, and
- Thereafter, WSAS develops information on each MFI's Investor Vintage and its performance results, period-by-period.

So for instance, the WSAS MFI SVIX 2005 (SVIX2005), with a base period of 2004, is the first annual Index series, and only IV2005 (2005's S^0) results will affect the SVIX2005.

The results of subsequent Investor Vintages in MFIs selected for SVIX coverage are included in the period the Investor Vintages are established.

So for instance, the results of an Investor Vintage established during 2005 in a Selection Year 2005 MFI would form the base period value for that MFI's results contribution in the SVIX2006, and the MFI's Investor Vintage established in 2007 would form the base period value for that MFI's contribution to the SVIX2008's results.

How to read this Table: The Investor Vintages formed during a year belong to the MFI SVIX annual index in the period they are created, no matter the MFI's Selection Year. For instance, the MFI SVIX 2009 (light blue) contains the 2009 results of all Investor Vintages formed in 2008, from all MFIs selected for 2009 and all prior periods (also indicated in the 2008 light blue column).

MFI Selection Year	MFI SVIX Index	Eligible MFI Investor Vintages, by year, where 0 = the base Investor Vintage for the Year 1/					
		2004	2005	2006	2007	2008	2009
2005	2005	0	1	2	3	4	5
2006	2006		0	1	2	3	4
2007	2007			0	1	2	3
2008	2008				0	1	2
2009	2009					0	1
2010	2010						0
	Composite	All Investor Vintages, in order of inclusion					

1/ Not all MFIs will add a new Investor Vintage every year, so Investor Vintage numbers used here are for illustrative purposes only.

The box below illustrates how the results of Investor Vintages get carried into the MFI year in which the Investor Vintages are formed. Note that MFIs #1, 2, and 3, from MFI Selection 2005, have value involved in SVIX 2006 from new Investor Vintages ($S^1V\$$) formed in 2005.

Establishing SVIX Annual Vintage results					
Illustration Purposes Only - not actual data or results					
Vintage 2005 MFI Shareholder Values - Base Period 2004					
	2004	**2005**	**2006**	**2007**	**2008**
MFI 1 S^0V $	$ 100.0	$ 100.0	$ 100.0	$ 100.0	$ 100.0
MFI 2 S^0V $	$ 200.0	$ 240.0	$ 288.0	$ 345.6	$ 414.7
MFI 3 S^0V $	$ 300.0	$ 300.0	$ 300.0	$ 300.0	$ 300.0
V2005 SV $	$ 600.0	$ 640.0	$ 688.0	$ 745.6	$ 814.7
MFI SVIX2005 - Index levels	100.00	106.67	114.67	124.27	135.79
MFI SVIX2005 - Index's annual results	0.0%	6.7%	7.5%	8.4%	9.3%
Vintage 2006 MFI Shareholder Values - Base Period 2005					
	2004	**2005**	**2006**	**2007**	**2008**
MFI 1 S^1V $		$ 100.0	$ 100.0	$ 100.0	$ 100.0
MFI 2 S^1V $		$ 100.0	$ 120.0	$ 144.0	$ 172.8
MFI 3 S^1V $		$ 200.0	$ 300.0	$ 300.0	$ 300.0
MFI 4 S^0V $		$ 100.0	$ 100.0	$ 100.0	$ 100.0
MFI 5 S^0V $		$ 200.0	$ 240.0	$ 288.0	$ 345.6
MFI 6 S^0V $		$ 300.0	$ 300.0	$ 300.0	$ 300.0
V2006 SV $		$ 1,000.0	$ 1,160.0	$ 1,232.0	$ 1,318.4
MFI SVIX2006 - Index levels		100.00	116.00	123.20	131.84
MFI SVIX 2006 - Index's annual results		0.0%	16.0%	6.2%	7.0%

The WSAS MFI SVIX Composite series

The WSAS MFI SVIX Composite Index combines the results of all Investor Vintages from all MFIs. The simplified illustration below uses the data from the prior illustration to show how this works. It should be pointed out that the SVIX Composite result for 2006 in the illustration is based on the year 2005 Composite SV, "adding back" the $1,000 in 2005 SV arising from the addition of 2006's base period SV.

WSAS MFI SVIX Composite Index - Calculation elements illustrated					
Illustration Purposes Only - not actual data or results					
	2004	**2005**	**2006**	**2007**	**2008**
A) V2005 SV $	$ 600.0	$ 640.0	$ 688.0	$ 745.6	$ 814.7
% SVIX Composite	100.0%	39.0%	37.2%	37.7%	38.2%
B) V2006 SV $		$1,000.0	$ 1,160.0	$ 1,232.0	$1,318.4
% SVIX Composite		61.0%	62.8%	62.3%	61.8%
C) MFI SVIX Composite SV$ (gross)	$ 600.0	$1,640.0	$ 1,848.0	$ 1,977.6	$2,133.1
less: period IV SV added	*$ 600.0*	*$1,000.0*			
= MFI SVIX Composite SV for period	$ -	$ 640.0	$ 1,848.0	$ 1,977.6	$2,133.1
Annual Result %	0.0%	6.7%	12.7%	7.0%	7.9%
MFI SVIX Composite Index	100.00	106.67	120.20	128.62	138.74

Note that V2005's SV $'s share of the Composite's SV at the close of 2005 was 39%, meaning the 2006 results of V2005's SV provides 39% of SVIX Composite's 2006 result.

Closing Comments

The WSAS MFI Shareholder Value Index series are unique benchmarks of the performance of shareholder investments in MFIs.

As microfinance becomes a more widely practiced and commercially-funded business activity, the Indexes will become increasingly important to investors looking to benchmark their portfolios' performance, and to potential investors who want to know MFI equity's performance characteristics.

Index Data Sources
Company Financial Information
The principal sources of data for the Indexes are company audited annual financial statements, and interim financial statements when available.

Most of the annual audits are sourced from MIX Market's each MFI Profile's "Files" section, but MFIs' own websites are often used as a source for these, in the few instances when MIX Market does not have these.

Shareholder and Shareholding Transaction Data
Most shareholding information comes from MFIs' audited financial statements, but much comes from news releases by the MFIs or by the investors themselves.

WSAS has compiled and is maintaining a database of MFI equity transactions, both to establish the basis for determining the annual MFI equity transaction/investment amount criteria as well as to help complete the picture of MFI Cohort formation and ownership shifts.

Currency Considerations and Translations into U.S. Dollars
The WSAS MFI SVIX information are presented in US$ terms. Future versions may include presentations in other international currencies such as Euros. Annual data are converted to US$ using end-of-year rates, where the date of the company's financial year-end determines the year-end.

Exchange rates to convert national currency results to US$ are taken from the following sources, in order of preference:
- As reported by the MFI in their financial statements, for the MFI's financial year-end;
- When Company preferences are not available, end-of-MFI-financial-year exchange rates to US$ as available from the online source www.Oanda.com have been used.

Index users should keep in mind that the exchange rates used for Index purposes will not necessarily be those that might have been achieved by investors in practice.

The period of the history of the WSAS MFI SVIX series (2004-2008) was generally very benign for most countries' currencies' exchange rates vis-à-vis the US Dollar (that is, the US Dollar generally lost value vs. the national currency), but using intra-period exchange rate fluctuations may have produced different results.

Endnotes

[1] There is a huge and rapidly growing body of literature about the sources and evolution of microfinance and of MFIs. Interested readers can start at www.microfinancegateway.com

[2] Good starting points for this subject are "The Growth of Commercial Microfinance: 2004-2006" (Sept. 2006), & "Characteristics of Equity Investments in Microfinance" (April 2004), by Elisabeth Rhyne & Brian Busch (2006), and by Rhyne and James Kaddaras (2004), respectively, for the Council of Microfinance Equity Funds. See http://www.cmef.com/Page.aspx?pid=1687 for access to these reports.

[3] The Microfinance Information Exchange, Inc. (MIX) is the world's leading source of data and research on MFIs. The MIX Market (www.mixmarket.org) and its research sister site www.themix.org are MIX's dissemination points for its work.

MIX provider provides a great range of data & research products on MFI performance. See particularly MIX's *Trend Lines* reports for time series' data on the medians for top (75th) quartile, bottom (25th) quartile, and overall results.

As for actual results, the latest available median RoE results in USD terms for the top quartile performers of MFI Banks was 16.2% (2005), 20.0% (2006), and 18.2% (2007). NBFIs achieved similar results. See www.themix.org/sites/default/files/MBB%2018%20-%20Before%20the%20Crisis.pdf for the most recent report.

[4] See Forbes, "The World's Top Fifty Microfinance Institutions", Dec. 20, 2007. http://www.forbes.com/2007/12/20/top-philanthropy-microfinance-biz-cz_1220land.html

[5] See A. Gonzalez/MIX, "Resilience of Microfinance Institutions to National Macroeconomic Events: An Econometric Analysis of MFI Asset Quality" http://www.themix.org/publications/resilience-microfinance-institutions-macroeconomic-events ;, Krause & Walter, "Can Microfinance Reduce Portfolio Volatility?" http://papers.ssrn.com/sol3/papers.cfm?abstract_id=943786   and also Galema et.al, " International Diversification and Microfinance", http://www.microfinancegateway.org/gm/document-1.9.34326/56904.pdf .

[6] The MSCI Emerging Markets Index produced annualized total returns in USD terms of +6.3% over the ten-year period Dec. 1999 to Dec. 2009, vs. -7.0% for the US S&P 500 and -5.2% for the MSCI EAFE Index over the same period.

[7] The presentation can be seen at http://www.ifc.org/ifcext/cfn.nsf/AttachmentsByTitle/The+Case+for+EM+PE/$FILE/The+Case+for+Emerging+Market+PE+Aug09.pdf .

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[8] For more background, see the US Social Investment Forum's "Emerging Markets Investor Survey Report: An analysis of responsible investment in emerging markets", June 2009 http://www.socialinvest.org/resources/research/documents/EMDPpaper062609.pdf

[9] See MicroRate, "The State of Microfinance Investment" at http://microrate.com/wp-content/uploads/2009/08/2009_MIV_Survey_Presentation_Final.pdf . See also the series of survey reports released by CGAP, which show similar trends and volumes. Most recent was The CGAP 2009 MIV Survey http://www.cgap.org/gm/document-1.9.38774/CGAP%20MIV%20Survey%20-%20Results%20Presentation.pdf .

[10] Much has been written recently about "the battle for the soul of microfinance", and the topic promises to be a continuing debate. Interested readers can start with The Financial Times article, "**The battle for the soul of microfinance**" (December 6, 2008). http://us.ft.com/ftgateway/superpage.ft?news_id=fto120520081936136455 .

[11] The microfinance industry is working furiously through a stakeholder task force to develop 'MFI social performance' standards, and to have the standards widely adopted and reported upon by MFIs. Check the Social Performance Task Force website (www.sptf.info) for more on this initiative, and the related MIX website which is accumulating MFI social performance reports – www.themix.org/standards/sp-reports. MIX also has applied its own measures of the 'balanced scorecard' on MFI operations, in its series of MIX MFI Global 100 Composite rankings. These can be seen at www.themix.org/publications/2009-mix-global-100-composite ,

[12] For explanations and details about MIX's "Diamonds for Disclosure" system, see www.mixmarket.org/faq/diamond-rankings . WSAS may seek financial statements from another public source, such as the MFI's own website, if such information is not for some reason found in MIX Market.

[13] WSAS compiles records of terms and amounts of publicly announced equity investments (and divestments) in MFIs, as well as records of FY year-end shareholdings in MFIs, in order to 'triangulate' information for use in determining MFI cohort results.

[14] WSAS uses MIX's acceptance of an institution as an MFI as sufficient to include it as an MFI in the WSAS MFI SVIX Indexes, assuming it meets the other Index inclusion requirements.

About Wall's Street Advisor Services (WSAS)

WSAS is a small consultancy specializing in innovations in financial information services, for emerging markets and socially responsible investing. Founder and CEO Peter Wall has over 20 years' experience in developing and marketing financial information services, with International Finance Corporation (IFC), FTSE International, and most recently, Microfinance Information Exchange, Inc. (MIX).

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