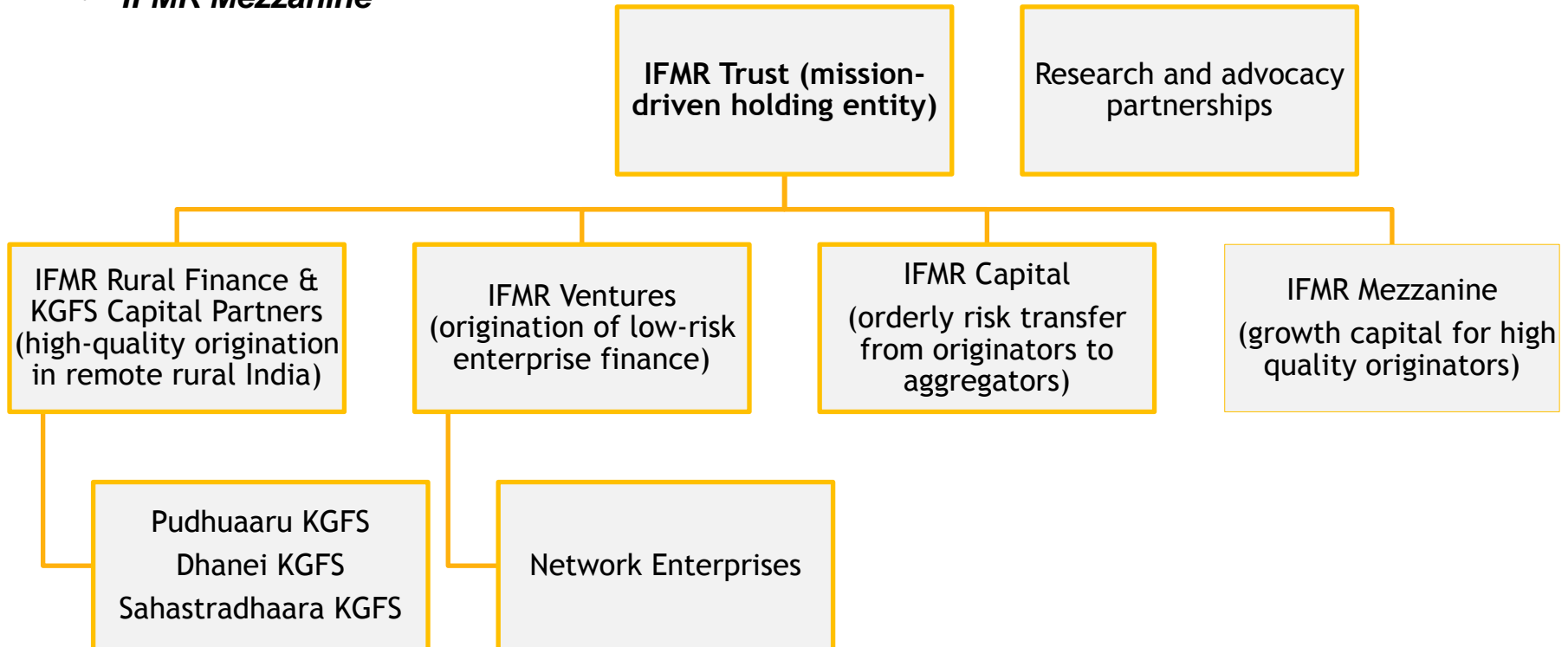


**Data Quality and Analysis**  
**- In the context of Capital Markets**

**IFMR Capital**

- IFMR Trust will invest in highly scaleable efforts that facilitate high-quality origination and orderly transfer of risk
- High quality origination
  - **KGFS, IFMR Rural Finance**
  - **Network Enterprises, Network Enterprises Fund**
  - **IFMR Mezzanine**
- Orderly transfer of risk
  - **IFMR Capital**



## IFMR Capital - The Vital Link

- ❑ High quality origination or frontline provision of financial services
- ❑ **Orderly transfer of risk**

***IFMR Capital: the vital link***

- ❑ Holding of risks by well-capitalised diversified entities

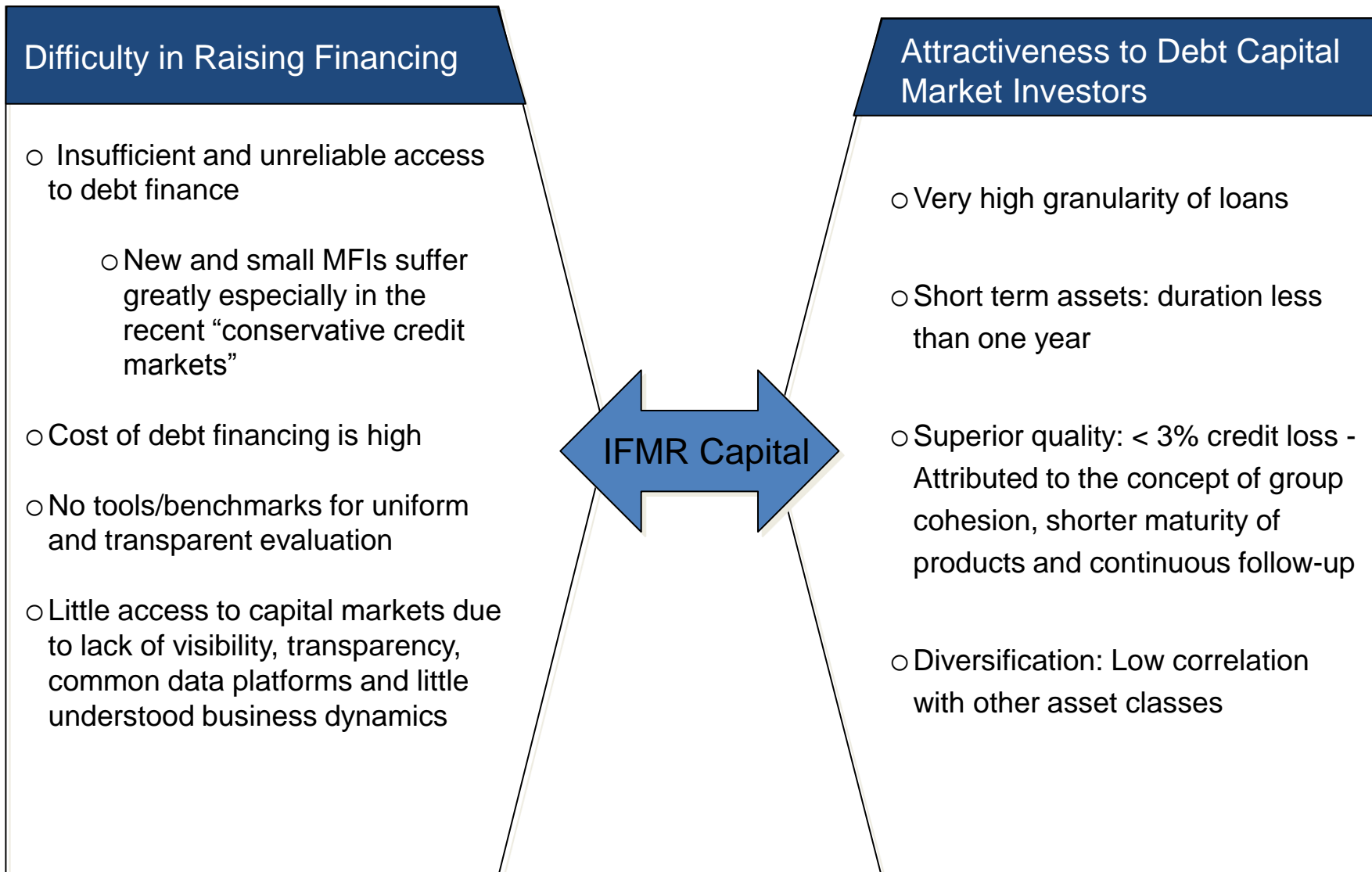


- ❑ Exposure across over **280 districts and 17 states / UTs**

## Our Milestones .....so far


- ❑ Developed **robust Underwriting Guidelines** and Eligibility Criteria to evaluate Micro Finance Institutions
- ❑ Completed due diligences on more than 60 Micro Finance Institutions
- ❑ Facilitated **INR 11 bn of financing** through loans and securitisation with 21 MFIs
- ❑ Structured various firsts: single originator securitisation, multi originator securitisation, revolving securitisation
- ❑ Introduced new investors in the microfinance capital markets: **Mutual funds, Private wealth investors and mainstream NBFCs**
- ❑ Launched our website with **first-ever comprehensive Deal Portal** on asset backed securitisation transaction ([www.ifmrcapital.com](http://www.ifmrcapital.com))
- ❑ Developed and launched a **portfolio monitoring system to manage our risk** on a granular, proactive and dynamic basis
- ❑ Developing underwriting guidelines for new asset classes: agricultural commodity backed loans, MSME financing, low income housing, gold loans

# Challenges in our Customer Base



- “Sunlight is the best disinfectant”. In the context of creating a market for a sector that is less understood, data is critical
- Is this data available?
  - No concerted effort has been made to create a database for understanding and utilising data. Some storehouses of information are CRISIL / M-Cril, who have rated several entities
  - Volume of data is huge as loans are very granular. It is difficult for a non-market practitioner to have access to such data
- Due to our work in the sector, we have access to extensive data from our clients, which could be used for analysis
- Clearly, it is necessary to work within the boundaries of complete confidentiality and privacy of client data.

- IFMR Capital is actively working to develop the market for the securities issued by our clients. We are in a unique position to develop a secondary market through our close involvement with the transactions and the investors
- We now have an active deal portal: <http://capital.ifmr.co.in/deal-portal> - that covers securitization transactions in all asset classes



## Deal Portal

A Database of Asset Backed Securitisation Deals in India

Latest News: [ext Billion](#) Insurers oppose Irda plan to put cap on Ulip surrender charges [Source: Live Mint](#) CAG raises concerns on direct tax code [Source: Live Mint](#) Govt kios

Microfinance
SME Loans
Commercial Vehicle Loans
Vehicle Loans
Personal Loans
Others
All

\* = Amount in Rs. Million; PP = Pool Principal; FP = Future Payouts; CC = Cash Collateral; FL = First Loss Default Guarantee; SL = Second Loss Default Guarantee; L = Liquidity Facility; WAS = Weighted Average Seasoned

Showing 1-6 of 6 transactions

No	Issue Name	Originator	Structure	PP*	FP*	Credit Enhancement				WAS	Rating / Opinion	Perf
						CC	FL	SL	L			
1	IFMR Capital Pioneer III	Grameen Koota	Premium	248	274	11.90%				1	Series A1 AA(so) Series A2 BBB (so)	
2	IFMR Capital Mosec I	Asirvad Microfinance, Sahayata Microfinance, Satin Creditcare, Sonata Finance	Premium	273	206	15.13%				4.2	Series A1 P1+(so) Subordinated Contribution Unrated	
3	IFMR Trust Pioneer II	Equitas Micro Finance India Pvt. Ltd.	Premium	422	369	10.60%				4.5	Series A1 P1+ (so) Series A2 AA(so) Series A3 BBB(so)	
4	Assignment of receivables - March 2009	SKS Microfinance Private Limited	Par	1076.6	1193.7	1	17.4%	-	-	-	Rating Withdrawn	
5	Share Microfin Loan Pool D.A. Mar-09	Share Microfin Ltd.	Par	493.4	434.2	0.085	N.A.	N.A.	N.A.	NA		
6	IFMR Trust Pioneer I	Equitas Micro Finance India Pvt. Ltd.	Par	156.7	189	11.7%	-	-	-	6	AAA(so) - Series A1 A (so) - Series A2	

Pages: 1

Sources: ICRA November 2009 Rating Feature; CRISIL Performance of ABS, MBS Pools, Decembe



## Mitigating Exogenous Risk

- ❑ **Portfolio approach:** IFMR Capital has developed a Portfolio Management System that tracks performance of pools at very granular levels. We will use the data to develop empirical and theoretical risk models that help understand default and prepayment behavior of the clients.
- ❑ **R&D focus:** IFMR capital puts continuous effort to develop innovative products and structures that meet the needs of MFIs and various classes of investors



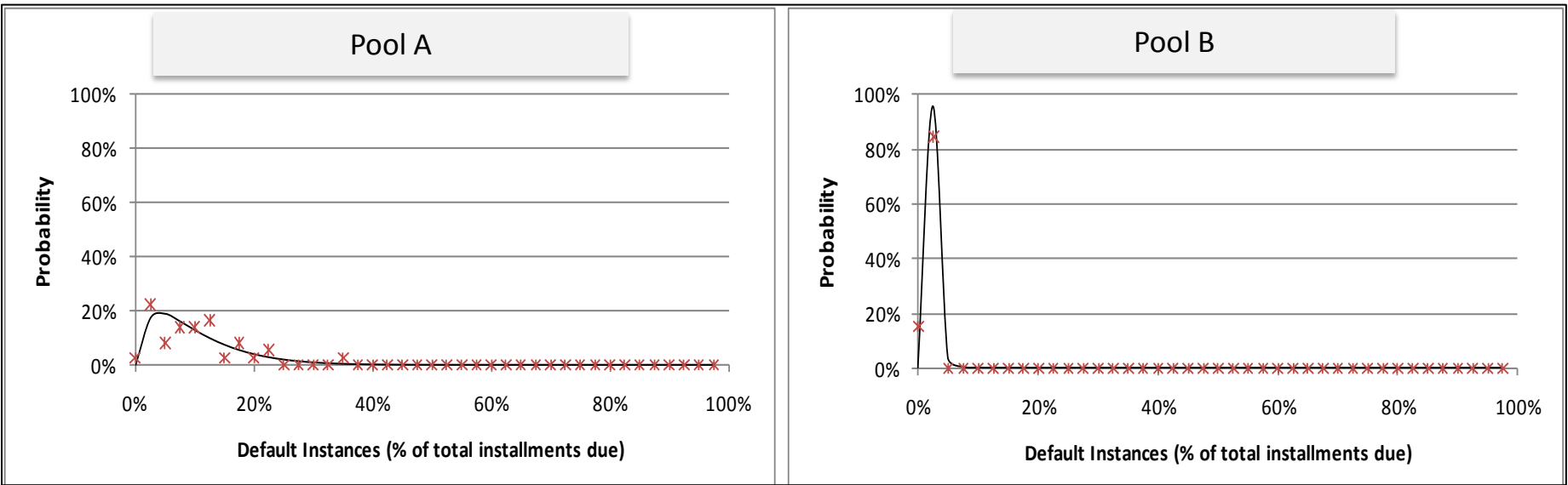
## Research efforts underway

Initiative	Overview
<b>Value-at-Risk (VaR) Model</b>	A model to calculate the VaR for a microfinance portfolio, using the Moody's Binomial Correlated Methods.
<b>Granular PAR Analysis</b>	For each transaction, periodic movement of PAR amount and Default instances across the geographies. This analysis is based on periodic MIS reports received from MFIs.
<b>Collection Efficiency Analysis</b>	Collection Efficiency (CE) mean and volatility at MFI and consolidated level. This analysis provides a macro view of overall performance of a transaction.
<b>District and State Scorecard</b>	Based on performance (PAR, defaults, collection efficiency) metrics, a scorecard model to compare among different states and districts.
<b>Correlation Matrix</b>	Risk team aims to develop and maintain two correlation matrices, geographical correlations and MFI correlations, to help better estimate the risk mitigation from diversification.

# Example: Default Distributions

	Observed Default Instances (Weekly)		Loss Distribution Parameters (Beta Distribution)		Loan Accounts-at-Risk (Number of Defaults) at a confidence level		
	Mean	Volatility	$\alpha$	$\beta$	90%	95%	99%
<b>Pool- A</b>	9.00%	7.27%	1.30	13.17	19.02%	23.45%	32.67%
<b>Pool- B</b>	0.59%	0.86%	0.46	77.8	1.62%	2.32%	4.04%

## Distribution curve for % default instances



# Example: Correlation Matrix

- ▶ Based on periodic collection efficiency of pools under securitization, a correlation matrix for seven MFI partners is constructed

	<i>Equitas</i>	<i>GK</i>	<i>Asirvad</i>	<i>Sahayata</i>	<i>Satin</i>	<i>JFSPL</i>	<i>GV</i>
<i>Equitas</i>	1.00						
<i>GK</i>	0.11	1.00					
<i>Asirvad</i>	0.08	-0.07	1.00				
<i>Sahayata</i>	0.28	0.24	0.08	1.00			
<i>Satin</i>	-0.17	-0.05	-0.30	0.00	1.00		
<i>JFSPL</i>	-0.09	-0.04	-0.18	0.01	-0.01	1.00	
<i>GV</i>	-0.58	-0.08	-0.45	0.02	0.47	-0.07	1.00

- ▶ Highest observed positive correlation between two partners is 0.47
- ▶ Out of 21 pair-wise correlation values, 16 are less than 0.25 in magnitude
- ▶ A total of 27 microloan pools are used in the calculation
- ▶ These 7 MFI partners account of 87% of net securitization exposure of IFMR Capital as of June 30, 2011

## Monitoring and Surveillance

- ❑ IFMR Capital has a Monitoring & Surveillance team that undertakes quarterly field monitoring and has exhaustive metrics to ascertain stress symptoms
- ❑ Off-site monitoring of clients is done regularly for in-depth operational and financial analysis, follow-up on covenants.
- ❑ Interaction and pro-active engagement with the client's management to adopt efficient practices and implement remedial policies

- ▶ The objective of Risk Monitoring is to:
  - ▶ Periodically assess partner MFIs' ability to continue to service the portfolio under various scenarios – both external and internal.
  - ▶ Detect early warning signals that may have the potential to adversely affect the MFI's serviceability of the portfolio.
  
- ❖ **Scope of Monitoring :**
- ▶ The monitoring visits check if the MFIs' systems and processes adhere to the requirements of the lending model
- ▶ ***Parameters of Visit:***
  - a. Implementation of MFI's policies and processes in the field and adherence to laid down procedures
  - b. Audit frequency and scope of field coverage
  - c. Incidences of fraud/ pre-closure cases/ clients drop out – reasons and action thereof
  - d. Delay in disbursements of loan / center meetings
  - e. Attendance and loan utilization check status
  - f. Detection of early warning signals disseminating from practices being followed, that may pose a risk

# Thank you

Visit our new website:  
<http://www.ifmrcapital.com>