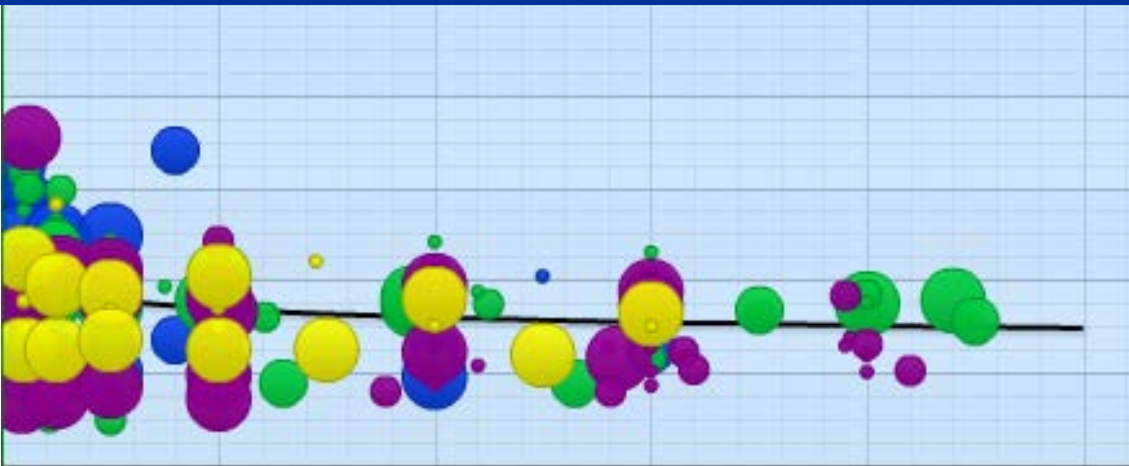


# **Incorporating Product Prices into Institutional Analysis**

**PRI Webinar  
November 2012**

Chuck Waterfield  
CEO  
MicroFinance Transparency



# AGENDA

Step 1: Understand Product Pricing

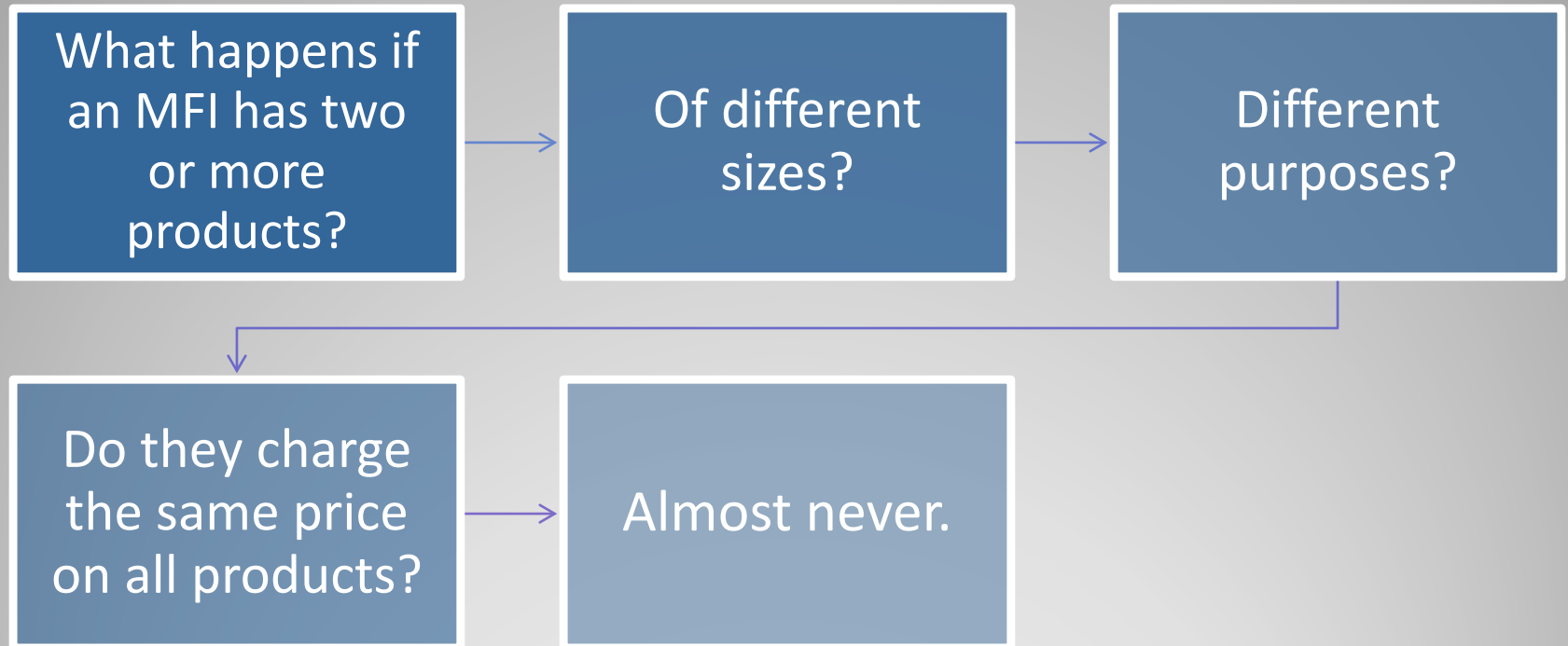
Step 2: Learn Where to Get Pricing Information

Step 3: Use Pricing Information to Make Better Decisions

# STEP 1: Understand Product Pricing

1. Institutional Portfolio Yield is limited
2. Each product has its own price characteristics
  - Each client often has a specific price they pay
3. Know what formula/definition is used
  - What you decide to include in the price calculation is critical
  - Is the annualization process nominal or compound?

# Global Portfolio Yield Isn't Enough



**Average Portfolio Yield is masking the true price.**

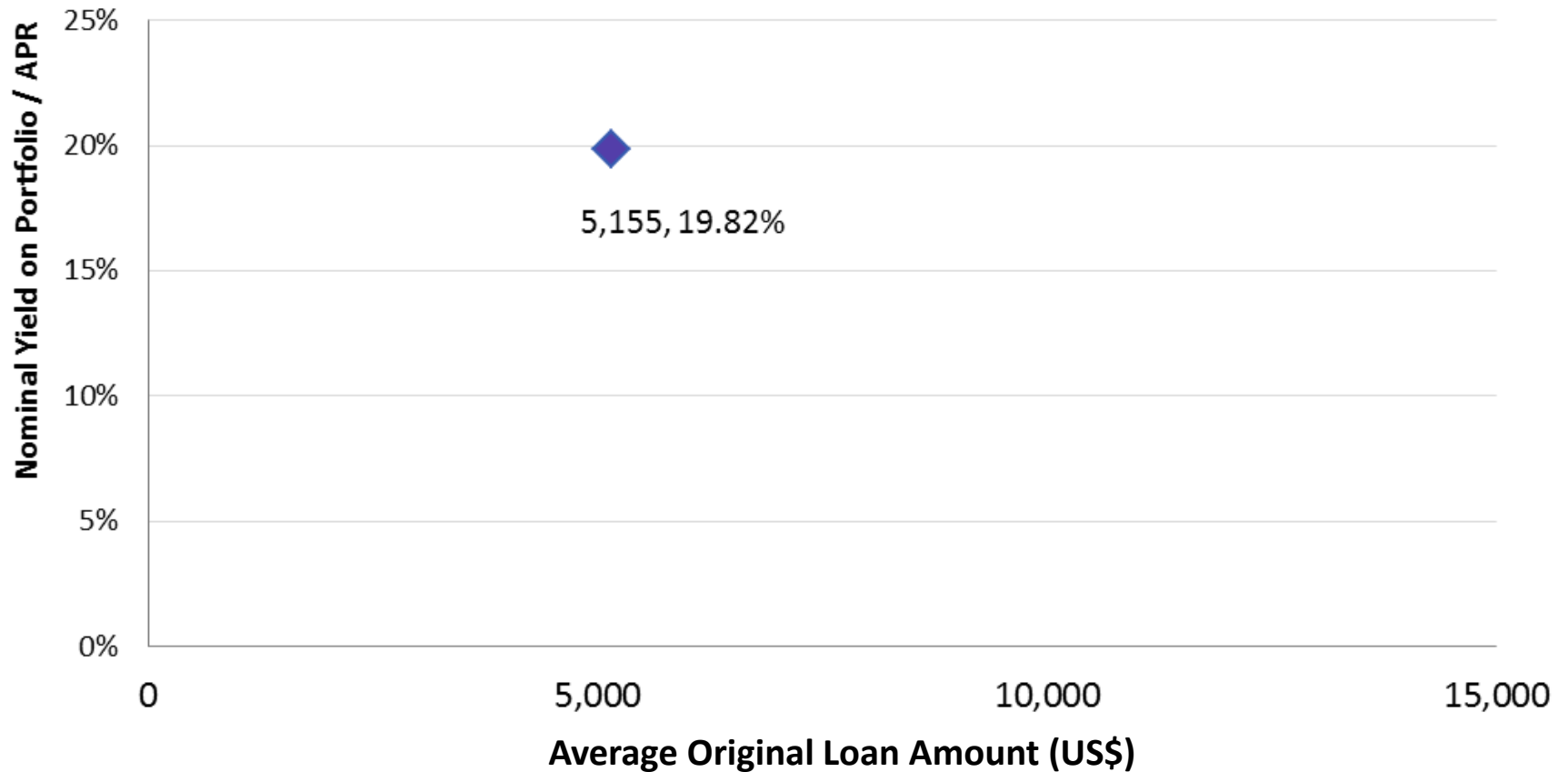
# Why Portfolio Yield Isn't Enough

MIX (31-12-2009)			
MFI	Average loan balance per borrower	Yield on portfolio (nominal)	Initial Loan Size
BancoSol	2,713	19.82%	5,155

# Interest Rate vs. Loan Size

## BancoSol

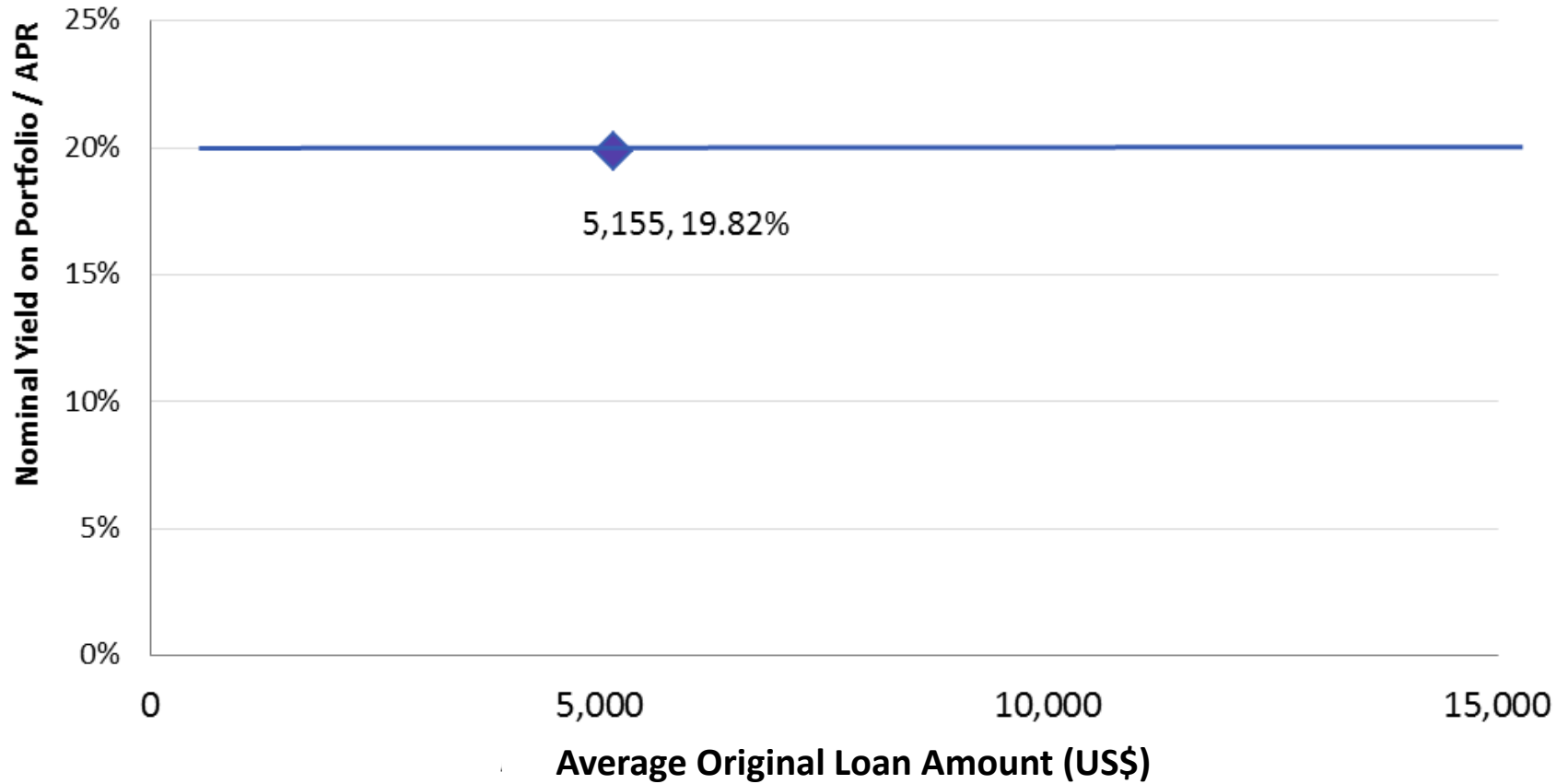
### MIX



# Interest Rate vs. Loan Size

## BancoSol

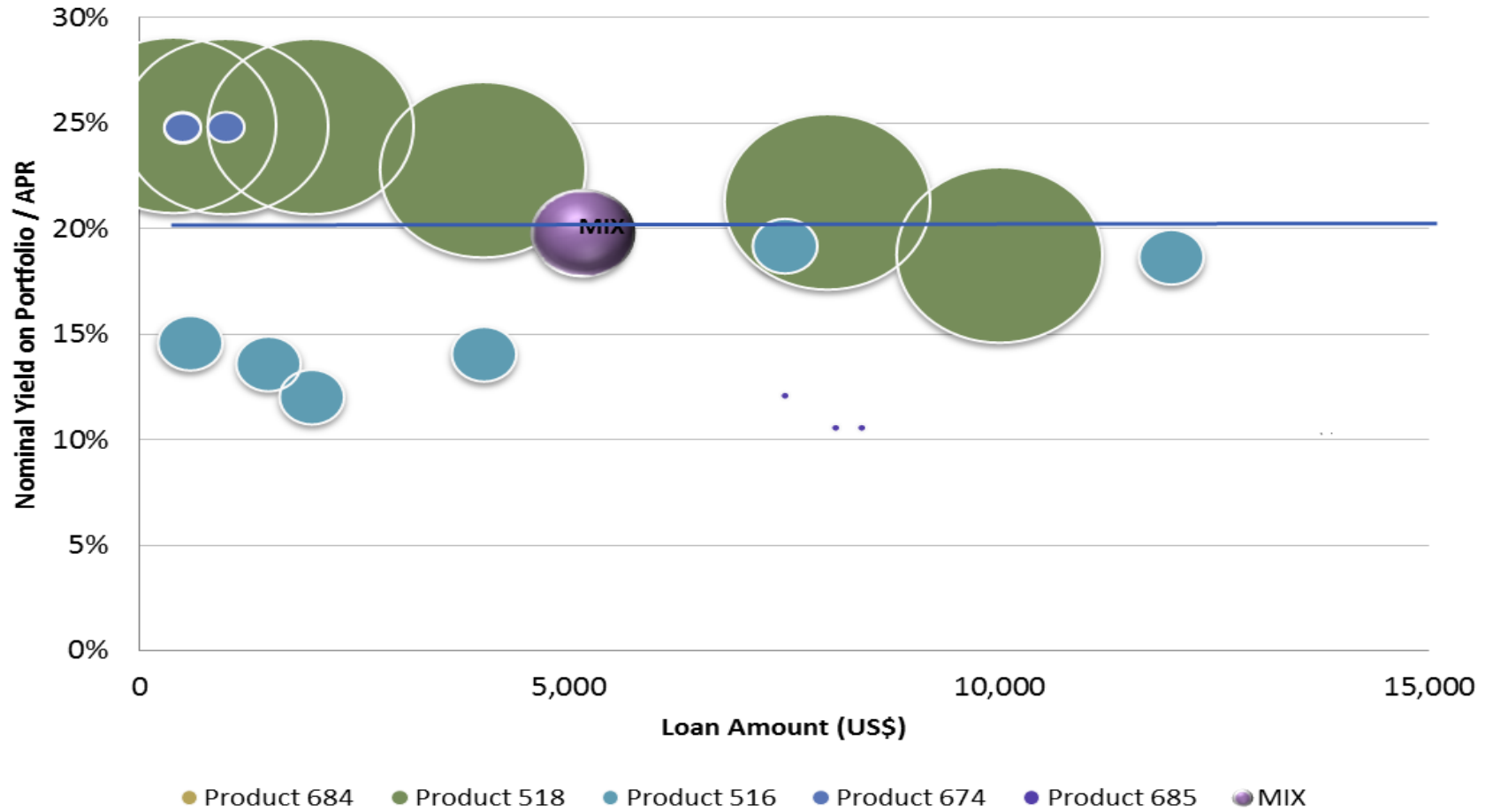
### MIX



# Interest Rate vs. Loan Size

## BancoSol

### MIX & MFT

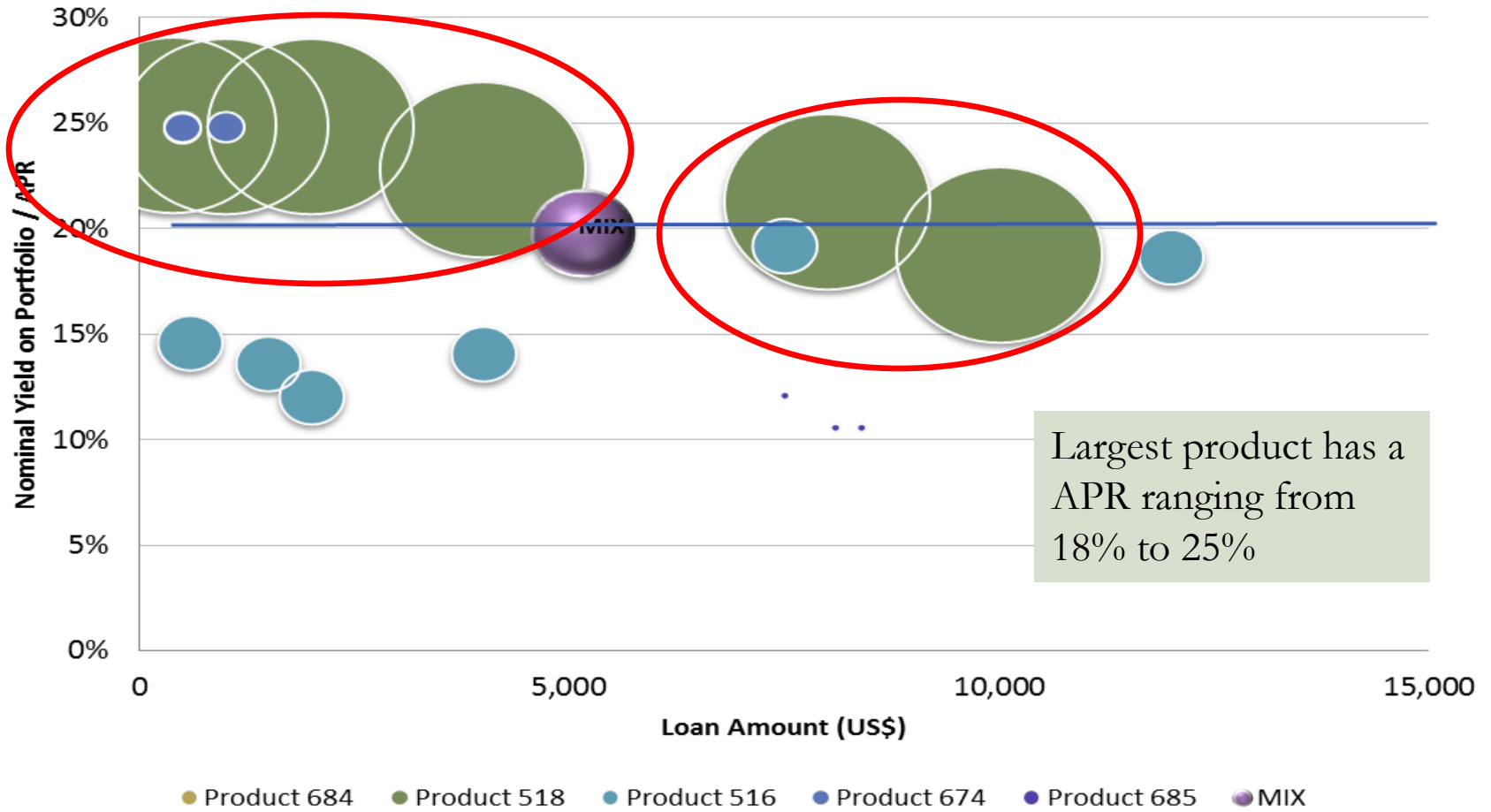




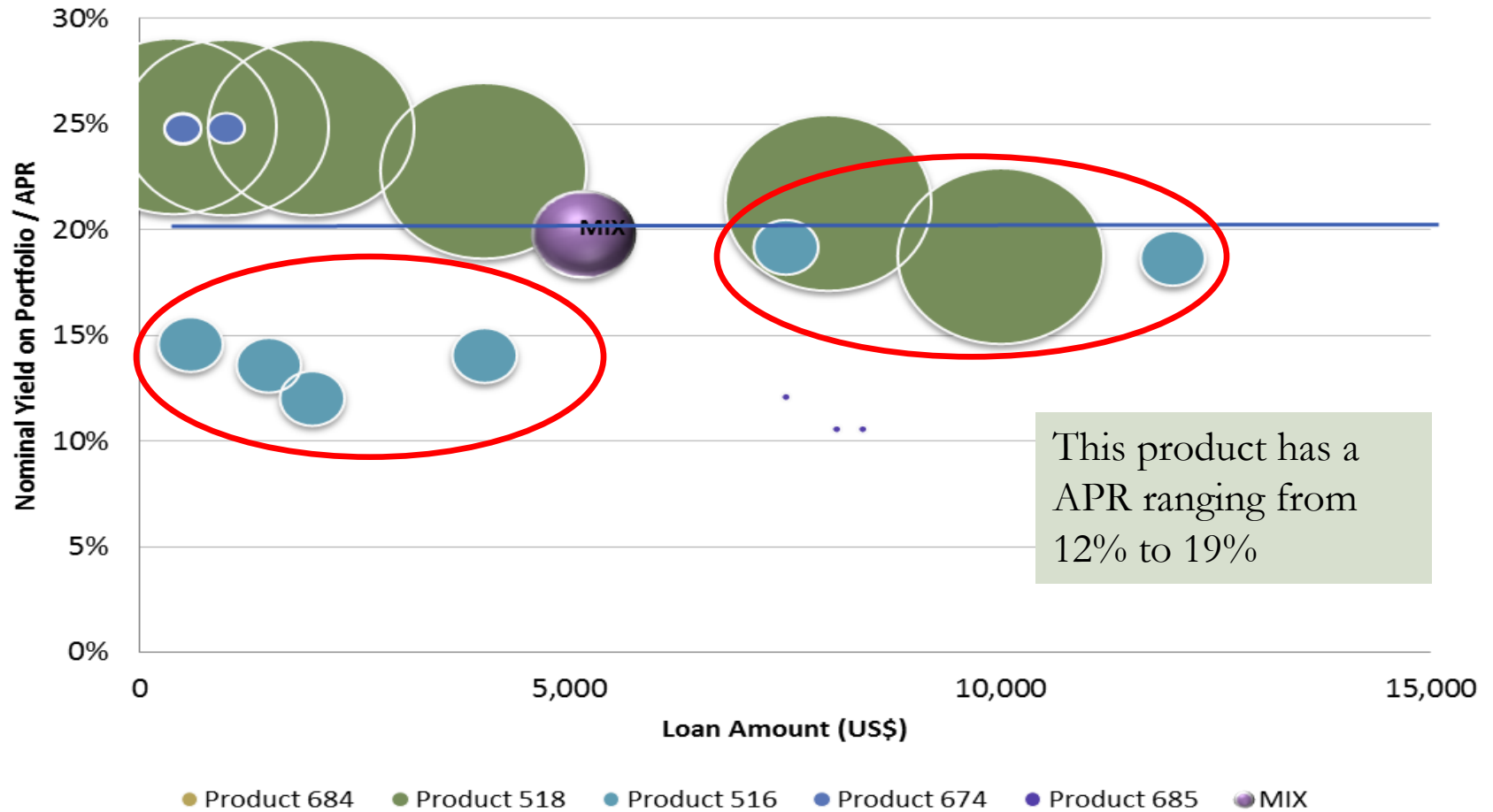
# Interest Rate vs. Loan Size

## BancoSol

### MIX & MFT



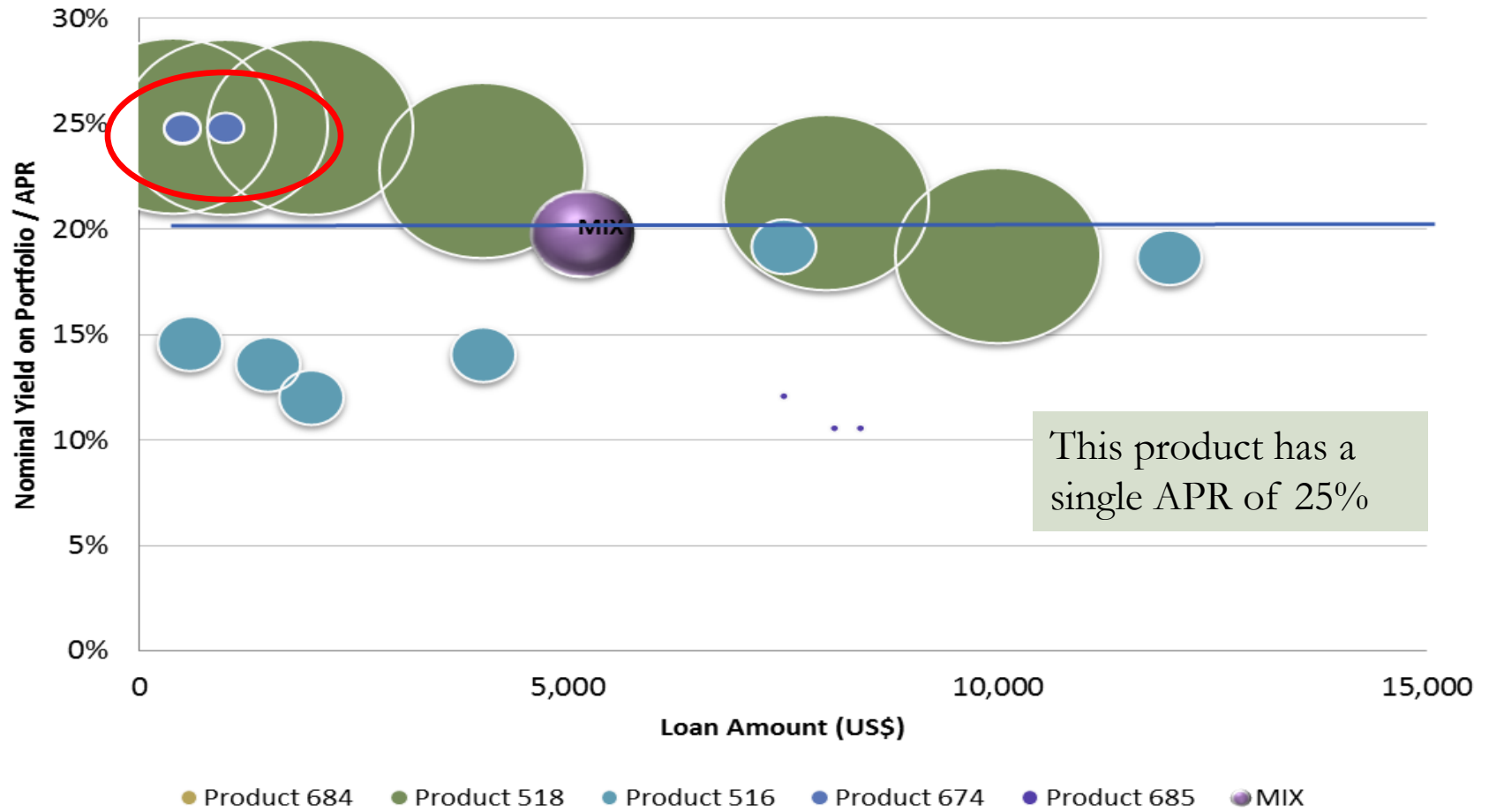
## Interest Rate vs. Loan Size BancoSol MIX & MFT



# Interest Rate vs. Loan Size

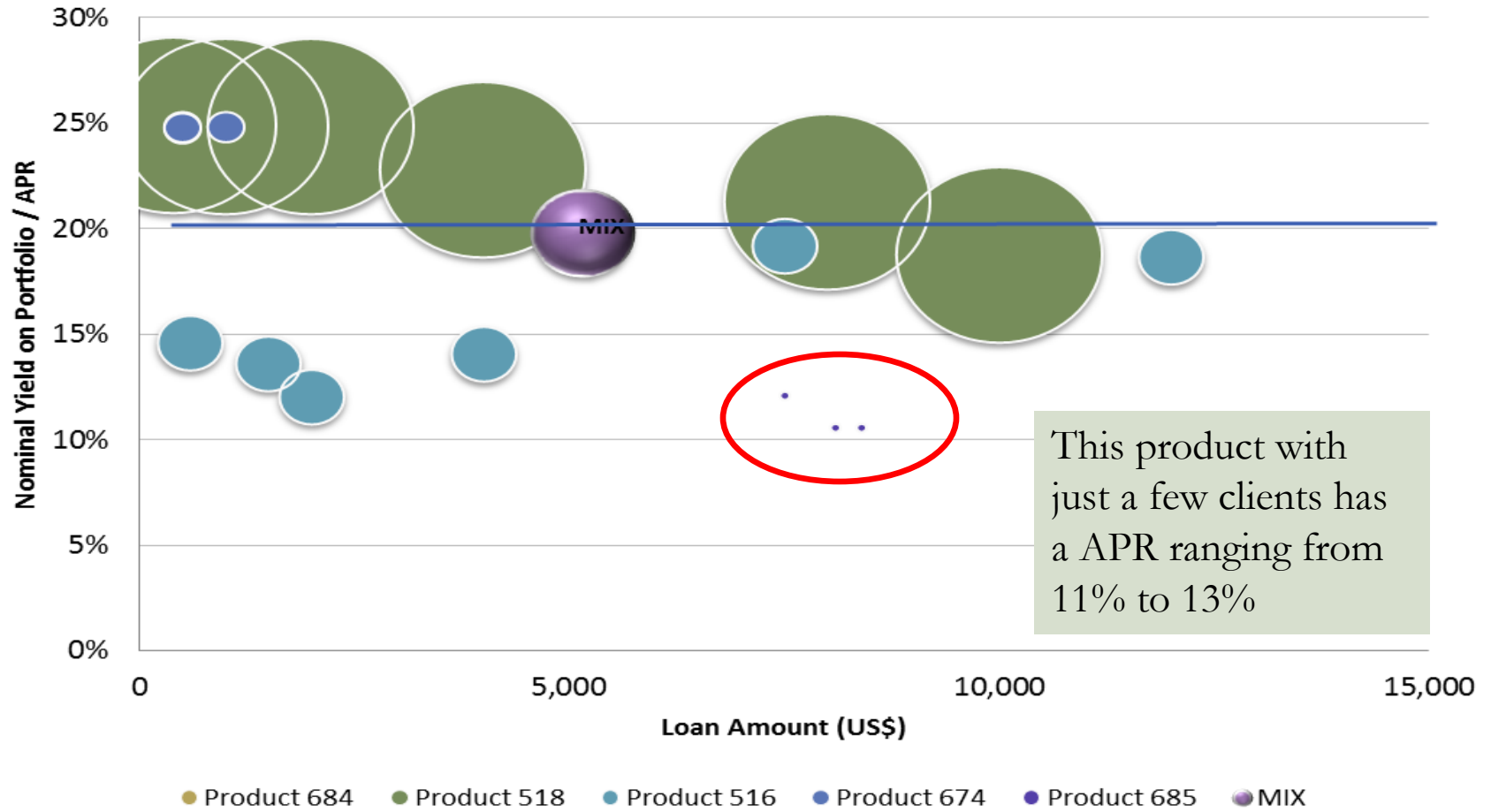
## BancoSol

### MIX & MFT

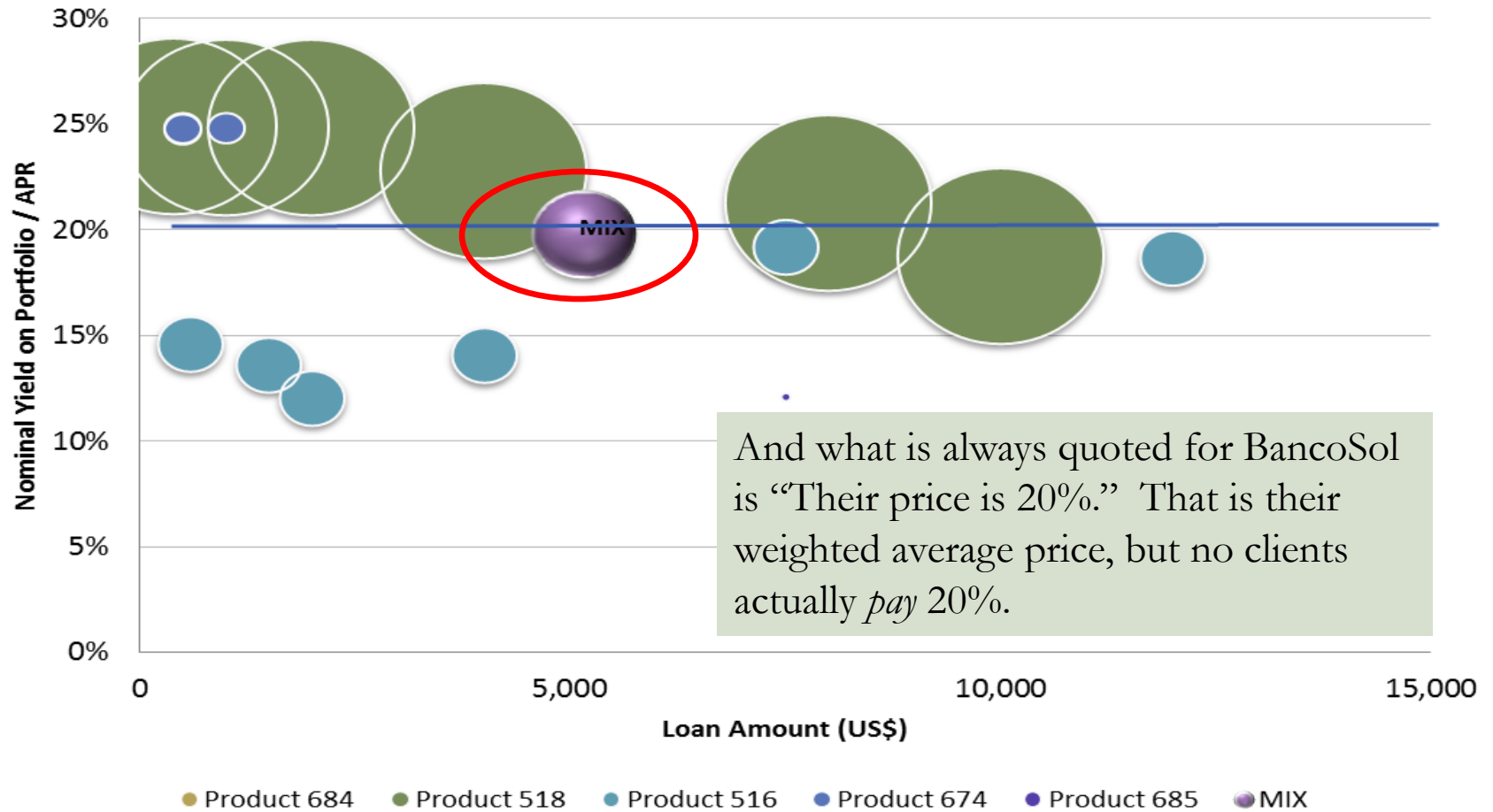


# Interest Rate vs. Loan Size

## BancoSol MIX & MFT



## Interest Rate vs. Loan Size BancoSol MIX & MFT



## “What costs should we include?”

- **Interest:** Certainly!
- What else? Everything that is a compulsory requirement for receiving the loan.
- **Fees:** Any compulsory fees must be included
  - **Training** fees? Yes, if the training is a requirement for the loan. The full-price is then for “credit-plus-training”
  - **Insurance** fees? Yes, if insurance is a requirement. The client can then compare: “Loan-only for 34% APR, loan-and-insurance for 38% APR”
  - **Compulsory Deposits** (“Savings”): Yes!

**Difference between APR (nominal annualization  
and EIR (compound annualization)**

Period "I"	APR	EIR	Difference
0.5%	6.00%	6.17%	0.17%
1.0%	12.00%	12.68%	0.68%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
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1.0%	12.00%	12.68%	0.68%
1.5%	18.00%	19.56%	1.56%
2.0%	24.00%	26.82%	2.82%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
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1.5%	18.00%	19.56%	1.56%
2.0%	24.00%	26.82%	2.82%
3.0%	36.00%	42.58%	6.58%
4.0%	48.00%	60.10%	12.10%
5.0%	60.00%	79.59%	19.59%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%
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2.0%	24.00%	26.82%	2.82%
3.0%	36.00%	42.58%	6.58%
4.0%	48.00%	60.10%	12.10%
5.0%	60.00%	79.59%	19.59%
6.0%	72.00%	101.22%	29.22%
7.0%	84.00%	125.22%	41.22%
8.0%	96.00%	151.82%	55.82%
9.0%	108.00%	181.27%	73.27%
10.0%	120.00%	213.84%	93.84%
	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%

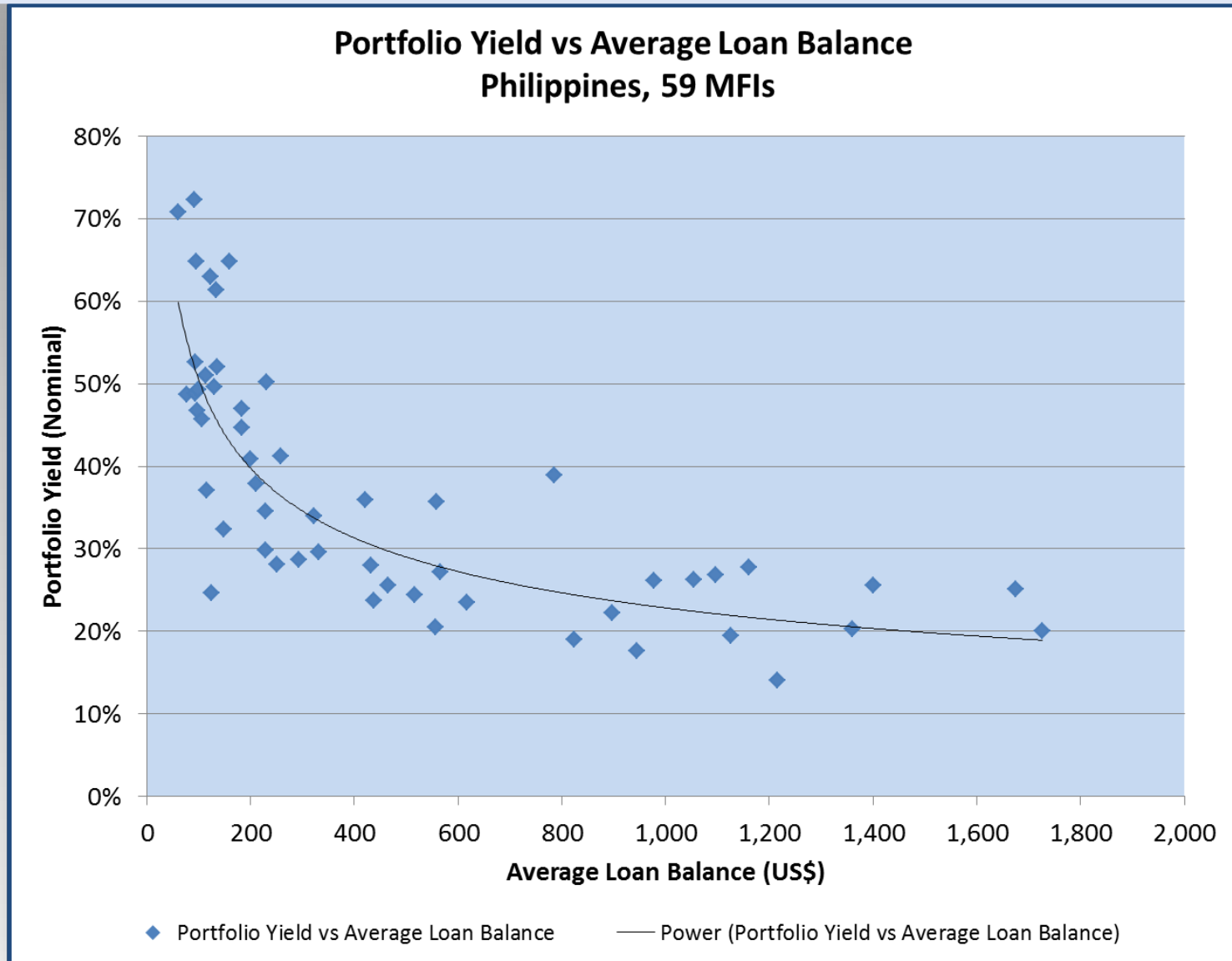
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2.0%	24.00%	26.82%	2.82%
3.0%	36.00%	42.58%	6.58%
4.0%	48.00%	60.10%	12.10%
5.0%	60.00%	79.59%	19.59%
6.0%	72.00%	101.22%	29.22%
7.0%	84.00%	125.22%	41.22%
8.0%	96.00%	151.82%	55.82%
9.0%	108.00%	181.27%	73.27%
10.0%	120.00%	213.84%	93.84%
12.0%	144.00%	289.60%	145.60%
15.0%	180.00%	435.03%	255.03%

## STEP 2: Get Pricing Info

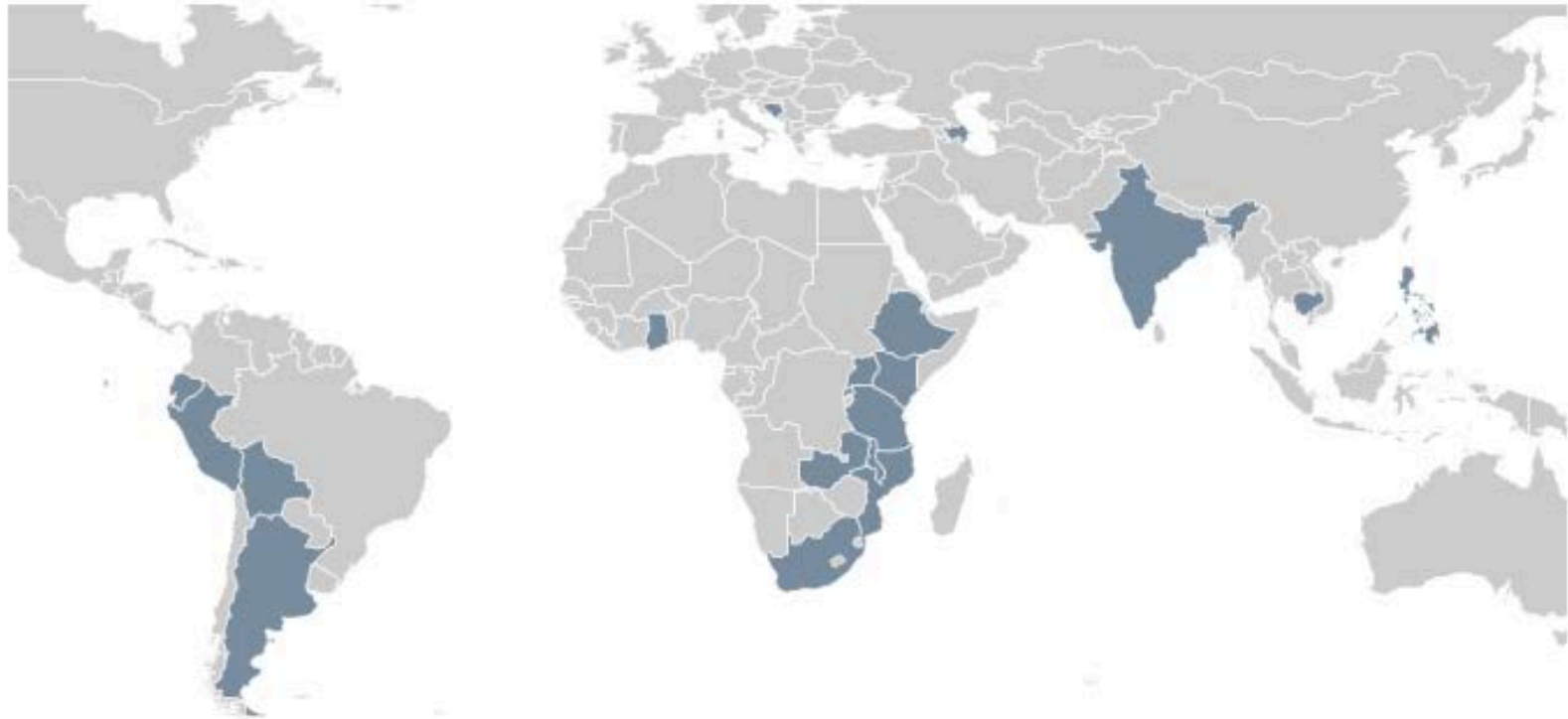
1. Start with portfolio yields, then get more detail
2. MicroFinance Transparency website
3. Ratings Reports
4. Calculate it yourself using MFT's tools

# "Pricing" with MIX Portfolio Yield



# MFTransparency Truth In Lending Tables

MicroFinance Transparency collects microfinance interest rate data for individual country markets and publishes this data as a series of interactive tables and graphs. MFTransparency's global pricing page features diverse microfinance product prices data from 17 countries. The individual country pages and interactive institutional data can be accessed by clicking on the names of the country on the global pricing map or alternatively on the countries table.



**20** Number of countries in which MFTransparency operates

**437** Total number of institutions MFTransparency covers

**1,461** Loan products accessible in MFTransparency's database

**41.3Mil** Number of clients that are participating institutions

## MFTRANSPARENCY INITIATIVE COUNTRIES

Country	Region	# Borrowers	Products	Institutions	Portfolio Size	Transp. Index
Azerbaijan	Central Asia	452,211	42	11	1,424,886,393	ToDo
Bolivia	Latin America	923,101	183	22	1,940,814,836	ToDo

## UNDERSTANDING PRICING

### Resources

- Briefing on the "Challenge of Understanding Microloans"
- Independent Study Course -



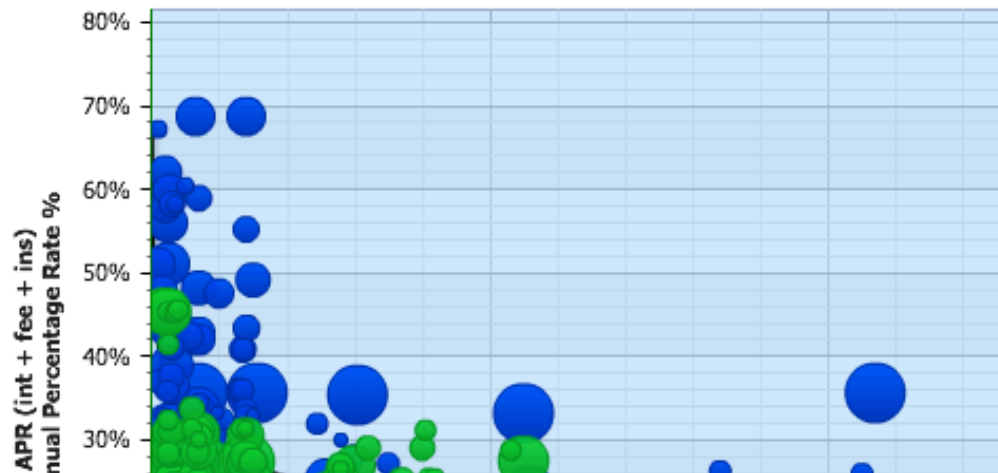
# Transparent Pricing In Bolivia

The *Transparent Pricing Initiative* in Bolivia was launched in May 2010 in partnership with two local microfinance networks **ASOFIN** and **FINRURAL**. The pricing data voluntarily submitted by the industry covers the vast majority of the Bolivian microfinance market, representing 95% of its gross loan portfolio and 98% of active borrowers.

Microfinance in Bolivia
Truth-in-Lending Legislation
Bolivia Price Graph

The Price Graph for Bolivia is a model example of the price curve explained and documented extensively by MFTransparency. As can be seen, microloan prices are significantly higher for smaller loans than for relatively larger loans. In all likelihood, these higher prices for smaller loans are due to the high costs associated with offering them. The evidence in Bolivia, with its long history of maturation and competition and with its transparent pricing legislation, is that the market is operating much like a real market, and in such an open and competitive market, prices are generally higher on the smallest loans without profits also being higher on the smallest loans.

Product Size vs Interest Rate (Bolivia)



## BROWSE TRUTH IN LENDING

Bolivia MFIs:

Select institution...

Other Countries:

Select country...

[GLOBAL PRICING HOME](#)

## KEY COUNTRY STATISTICS

Bolivia



Gross Loan Portfolio:	US\$1.9 Million
No. of Active Borrowers:	923,101
No. of MFIs:	22
Participation Rate:	98%
Initiative start date:	February 2010
Update Frequency:	Never

## LATEST NEWS & RESOURCES

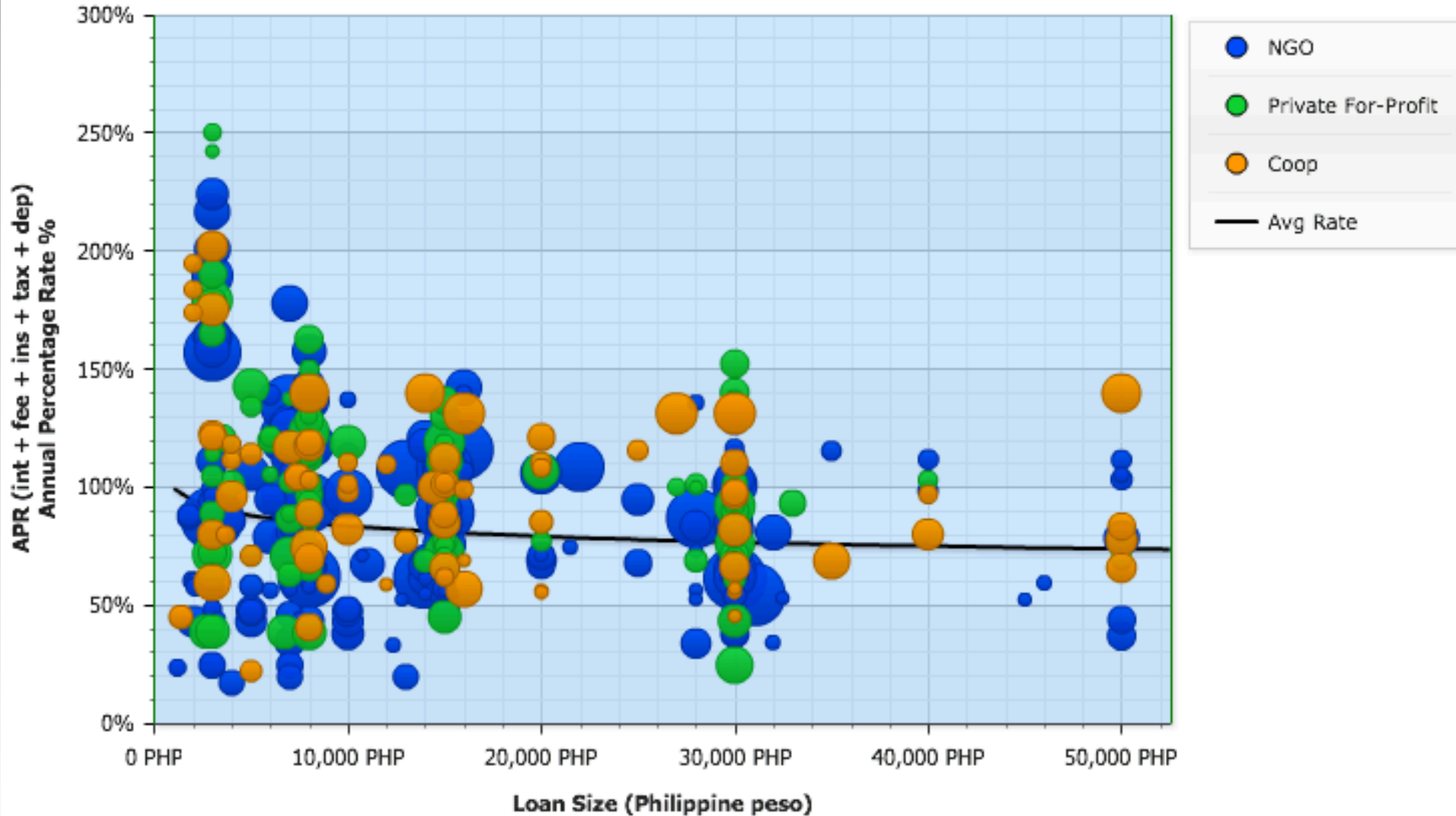
News

- MFTransparency launched Transparent Pricing Initiative in Bolivia
- Pricing Transparency Launch in Bolivia



# Pricing on MF Transparency – Country Level

Product Size vs Interest Rate (Philippines)





# Pricing on MF Transparency – Institution Level

## Philippines

### Alalay sa Kaunlaran, Inc.

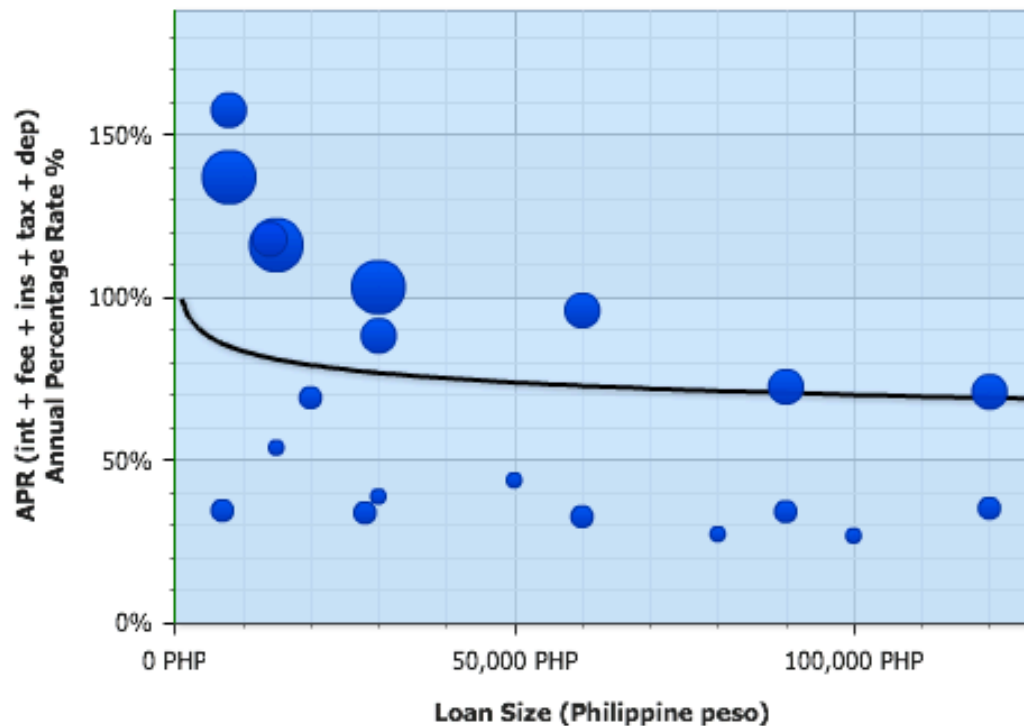
Institution Type	NGO
Website	<a href="http://www.aski.com.ph/">http://www.aski.com.ph/</a>
Address	105 Maharlika Highway Cabanatuan , Philippines
Num Branches	38
Num Clients	60,018
Year Started	1987

Alalay sa Kaunlaran, Inc. offers products in 1 currency

View in graph:

Philippine peso (PHP)

Product Size vs Interest Rate (Philippines)



# Pricing on MF Transparency – Product Level

## Philippines

**Institution:** Alalay sa Kaunlaran, Inc.

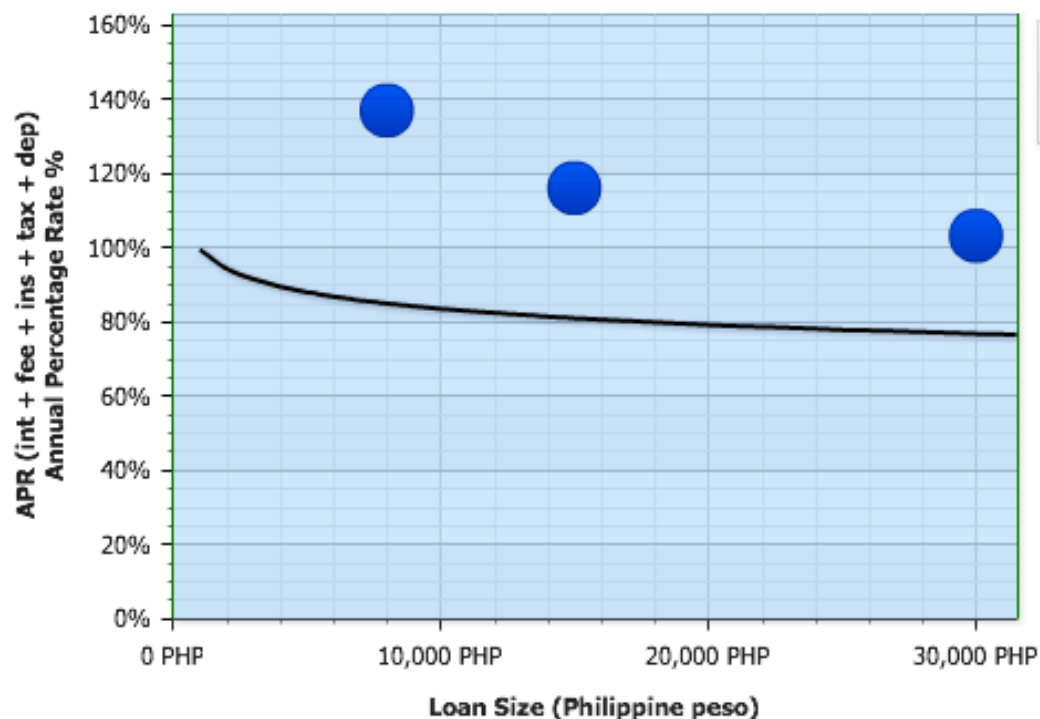
**> Product:** AKP - Alalay sa Kabuhayan Program (Group Loans)

Institution Alalay sa Kaunlaran, Inc.

Country Philippines

Purpose Business

Product Size vs Interest Rate (Philippines)



**You can use our MFT Pricing  
Calculator to deepen your  
understanding and to calculate actual  
prices of loans**

# MFTransparency Pricing Tool

- Download our free software to study and calculate pricing.
- It runs in Microsoft Excel and is multi-lingual



The screenshot shows the MFTransparency website. The header features the logo 'mftransparency.org' and the tagline 'Promoting Transparent Pricing in the Microfinance Industry'. A navigation menu includes 'Home', 'News', 'Resources', 'Endorsements', 'Sponsors', 'About', 'FAQ', 'Blog', and 'Country Data'. Below the menu, there are links for 'All Countries >', 'Bosnia', 'Cambodia', 'Azerbaijan', 'Kenya', 'India', 'Latin America', 'West Africa', and 'enabling APF'. The main content area is titled 'The MFTransparency "Calculating Transparent Prices" Tool' and includes a 'Purpose' section. The purpose text states: 'MFTransparency's "Calculating Transparent Prices" Tool is an Excel-based tool that can be used to analyze the cost of a particular loan product. This tool helps the users understand how various factors influence the total cost of a loan. It also enables cost comparisons between loans with different fee structures. Click below to access Version 2.10 of the tool, with several important new features.' A blue button at the bottom of the page reads 'CLICK HERE TO DOWNLOAD TOOL'.

# MFT Pricing Calculation Tool – Basic Analysis

## Calculation of APR based on Loan Conditions and Pricing -- SIMPLE APPROACH

### Basic Loan Conditions

Loan Amount:	\$1,000
Term & Repay Freq.	12 Months

### Loan Pricing

Inputs	Incremental Cost	APR	Factor
Interest Method	Flat		
Annual Interest Rate (%)	24.0%	41.7%	1.7
Up-front Fee (%)	2.0%	45.8%	1.9
Value-Added Tax (%)	0.0%	45.8%	1.9
Security Deposit (%)	0.0%	45.8%	1.9
Interest Paid on Deposit (%)			

### Total Financial Cost to the Client

Total Cost (less Sec. Dep. int):	\$260	in 12 Months
Annualized	\$260	in 1 year
Avg net loan balance:	\$522	52% of original loan amount

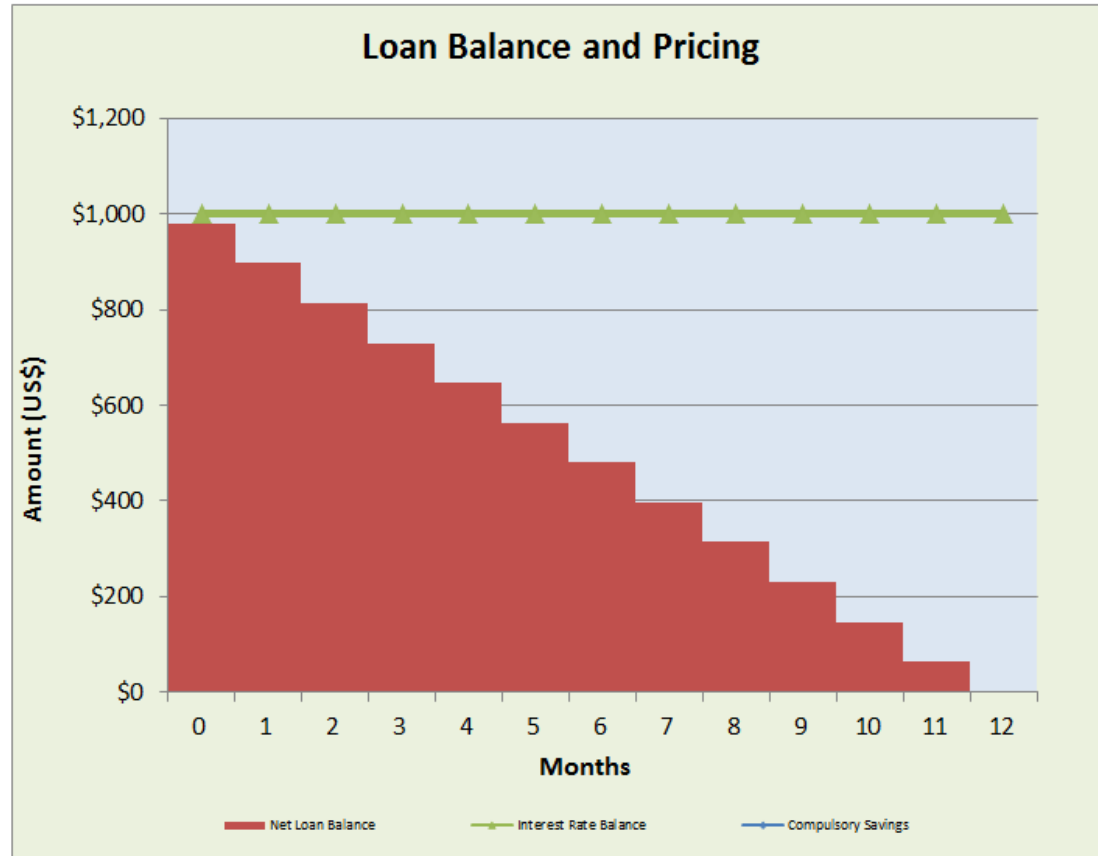
*This is the amount the client has to invest in her business*

**Client Breakeven Point:** 24.1 Months

*The month when the total loan cost equals the avg loan balance*

### Amount of Time with Negative Net Balance

Months:	0
% of loan term:	0%



# MFT Pricing Calculation Tool – Advanced Analysis

## Calculation of Transparent Pricing

 Display EIR values

### Basic Loan Conditions

Amortization:

Equal principal payments

MPR threshold

 Loan Amount: **\$1,000**

Interest:

Multiple installments

**6**

Term &amp; Repay Freq.

**12**

Months

Days/per (t):

30

Capital

Int Pmt

Int Calc

Balloon

Per/Mon (m)

1.00

Grace or Prepay (Months)

Per/Yr (n):

12.00

### Loan Pricing

Nominal interest Rate (%)

**24.00%**

Per year

Nominal Annual &amp; Method

**24.00%**

Initial amount, or "flat"

**Period**
**MPR (nom)**
**APR (nom)**
**EIR (comp)**
*i*
*i \* m*
*i \* n*
 $(1 + i)^n - 1$ 

3.475%

**3.48%**
**41.70%**
**50.57%**
**Upfront**
**Ongoing**
**Increment**

Fee (%)

**1.00%**
**2.1%**

3.646%

**3.65%**
**43.76%**
**53.58%**

Fee (fixed amount)

**0.0%**

3.646%

**3.65%**
**43.76%**
**53.58%**

Insurance (%)

**0.0%**

3.646%

**3.65%**
**43.76%**
**53.58%**

Insurance (fixed amount)

**0.0%**

3.646%

**3.65%**
**43.76%**
**53.58%**

Value-Added Tax (%)

On Fees:

**0.0%**

3.646%

**3.65%**
**43.76%**
**53.58%**

On Interest:

**0.0%**

3.646%

**3.65%**
**43.76%**
**53.58%**

Security Deposit (%)

**10.0%**
**8.5%**

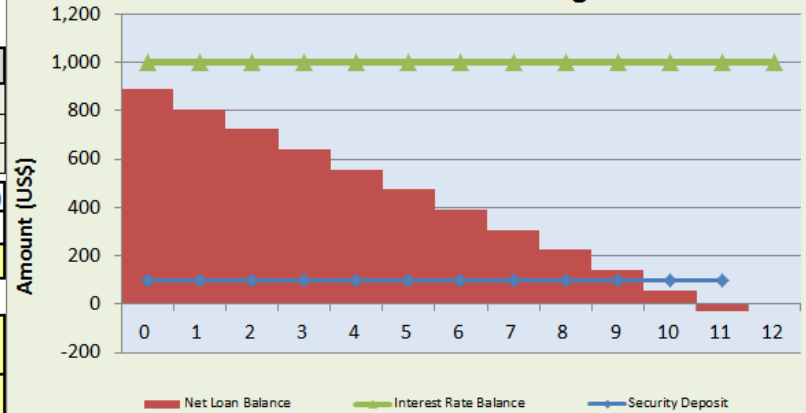
4.358%

**4.36%**
**52.30%**
**66.69%**

Security Deposit (fixed)

Interest Paid on Deposit (%)

## Loan Balance and Pricing



### Total Financial Cost to the Client

### Transparency Index

**46**

Total Cost (less Sec.Dep. int):

**\$250**

 in 12 Months, or ..... **\$250** in 1 year

Avg net loan balance:

**\$432**

which is 43% of original loan amount

Client Breakeven Point:

**1.73**

Years until total loan cost equals the avg loan balance

Negative Net Balance for:

**2**

Months, which is....

**17%**

% of loan term

# MFT Pricing Calculation Tool – Advanced Analysis

**Calculation of Transparent Pricing**  Display EIR values

**Basic Loan Conditions**

Amortization: Equal principal payments  
 Interest: Multiple installments  
 MPR threshold: 6

Loan Amount: \$1,000  
 Term & Repay Freq.: 12 Months  
 Days/per (t): 30  
 Per/Mon (m): 1.00  
 Per/Yr (n): 12.00

Grace or Prepay (Months):  
 Capital Int Pmt Int Calc Balloon

**Loan Pricing**

Nominal interest Rate (%): 24.00% Per year  
 Nominal Annual & Method: 24.00% Initial amount, or "flat"

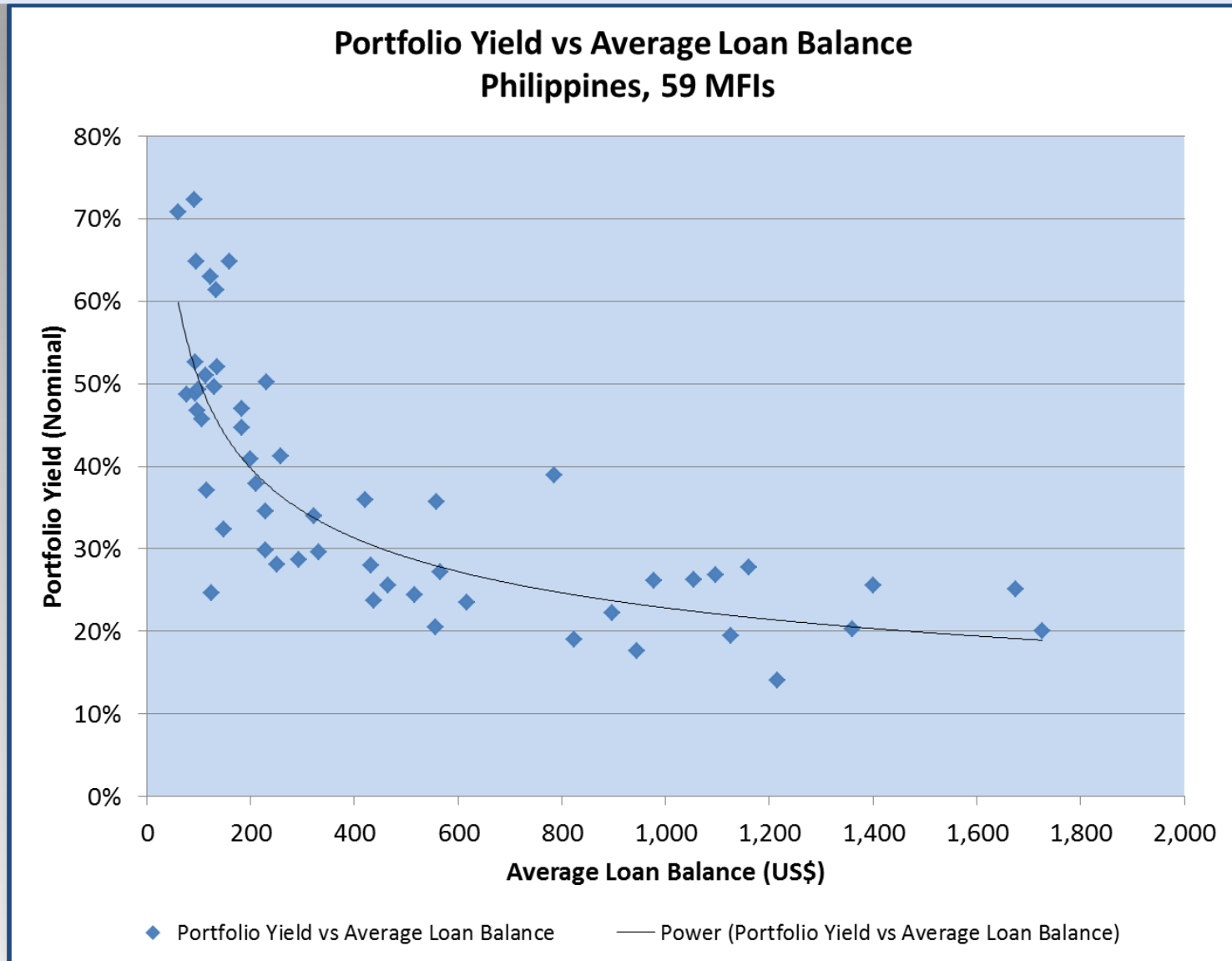
	Period	MPR (nom)	APR (nom)	EIR (comp)
	$i$	$i * m$	$i * n$	$(1 + i)^n - 1$
	3.475%	3.48%	41.70%	50.57%
	Upfront	Ongoing	Increment	
Fee (%)	1.00%		2.1%	3.646%
Fee (fixed amount)				3.65%
Insurance (%)			0.0%	43.76%
Insurance (fixed amount)				53.58%
Value-Added Tax (%)	On Fees:		0.0%	3.646%
	On Interest:			3.65%
Security Deposit (%)	10.0%		8.5%	43.76%
Security Deposit (fixed)				53.58%
Interest Paid on Deposit (%)				66.69%

## STEP 3: Using Pricing Info to Make Better Decisions

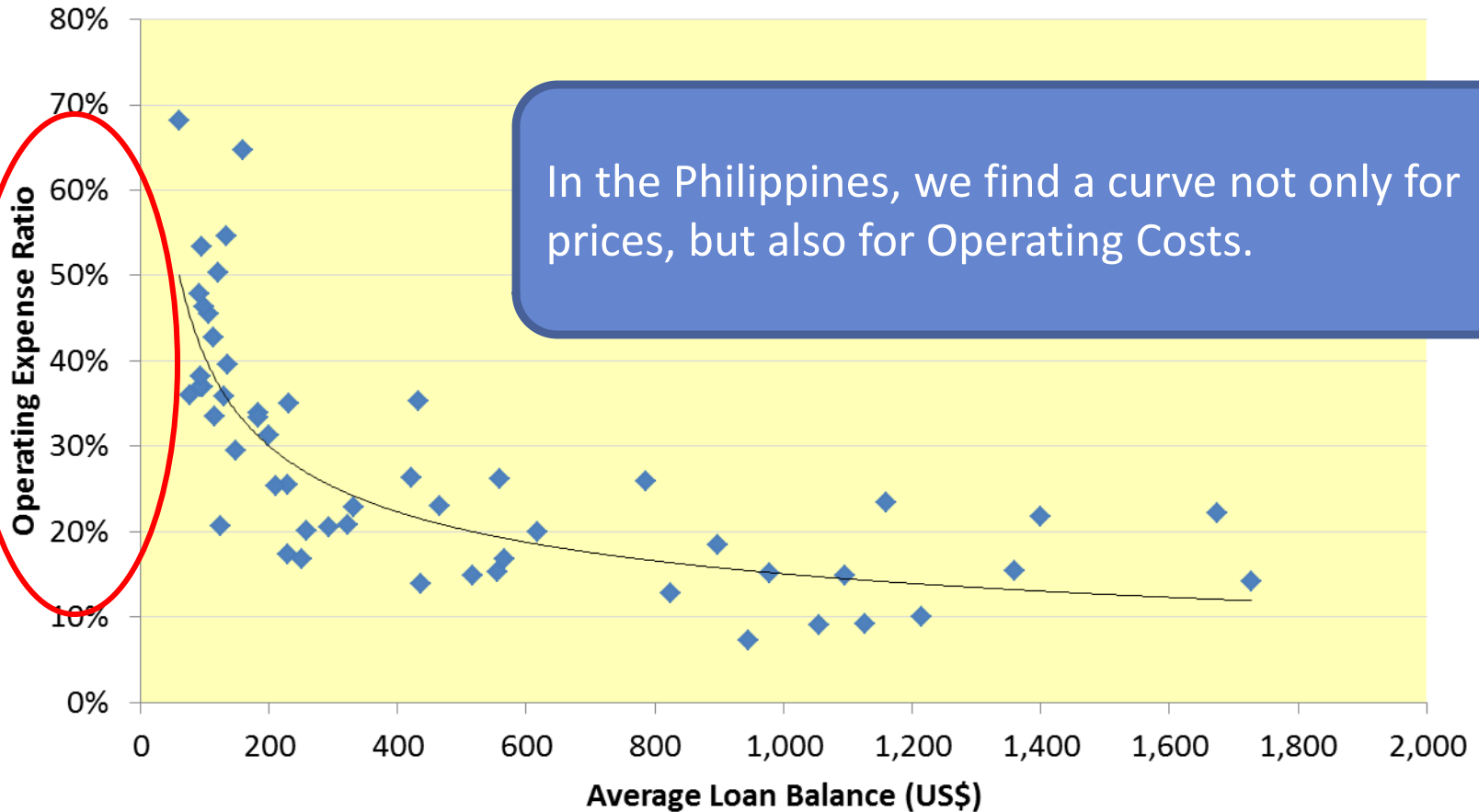
1. Cardinal Rule in analyzing micro-loans: Never use averages!
2. Understand the price curve and learn more about where the curve begins
3. For each product, evaluate how close to the curve are they – this is as best we can get to a “fair market price”
4. Compare price info with operating cost info and profits



# The Undeniable Price Curve



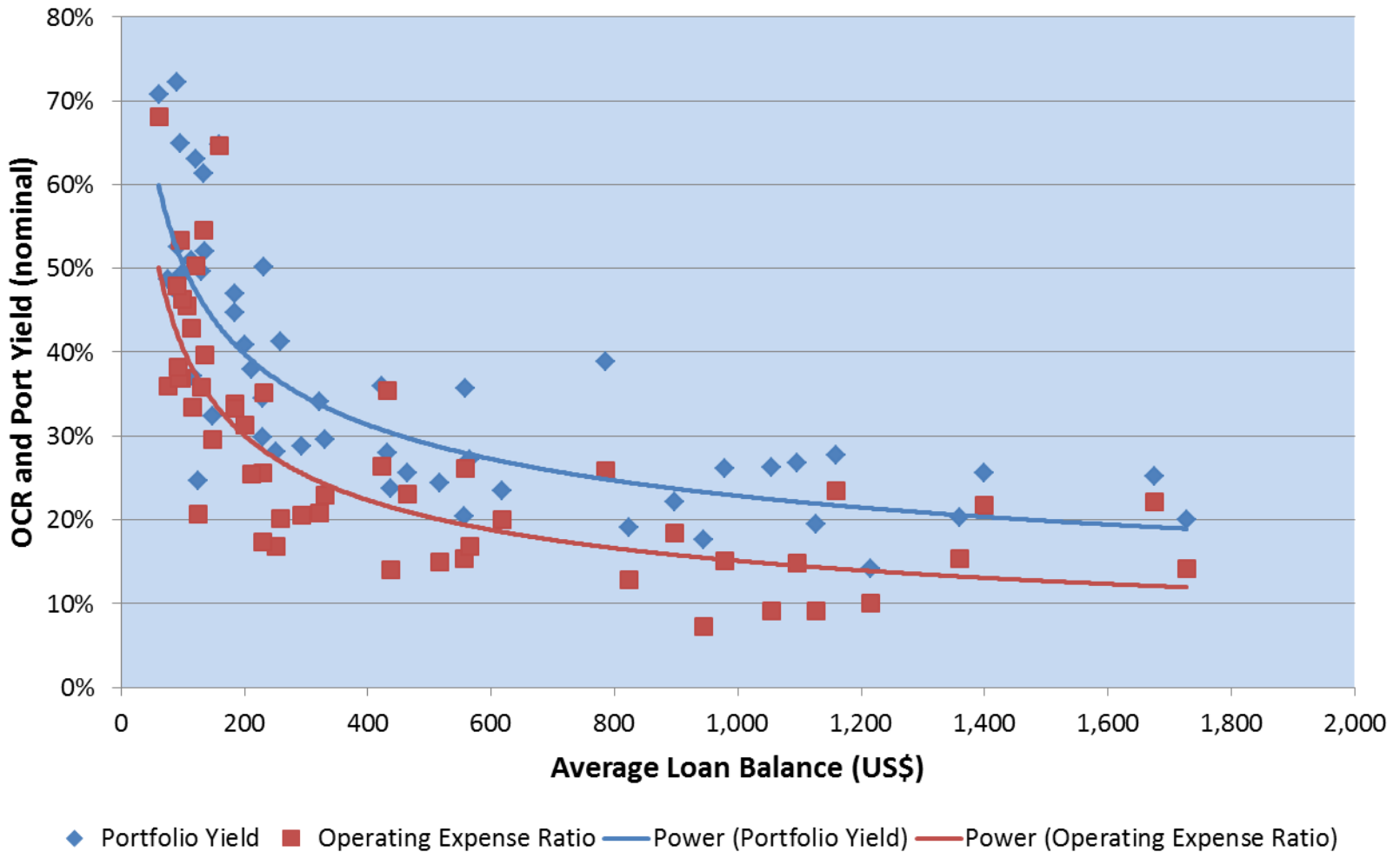
## Operating Expense Ratio vs Average Loan Balance Philippines, 59 MFIs



In the Philippines, we find a curve not only for prices, but also for Operating Costs.

- ◆ Operating Expense Ratio vs Average Loan Balance
- Power (Operating Expense Ratio vs Average Loan Balance)

## Portfolio Yield & OER vs Average Loan Balance Philippines, 59 MFIs



# Cost Components that Affect Pricing

Component	
Financial Costs	10%
Loan Loss	2%
Operating Costs	20%
Profit	3%
Total Price	35%

## Realizing that there is a cost curve

Efficiency	1	2	3
Operating Cost per Loan	\$50		
Loan Size	\$500		
Operating Cost Ratio	10%		

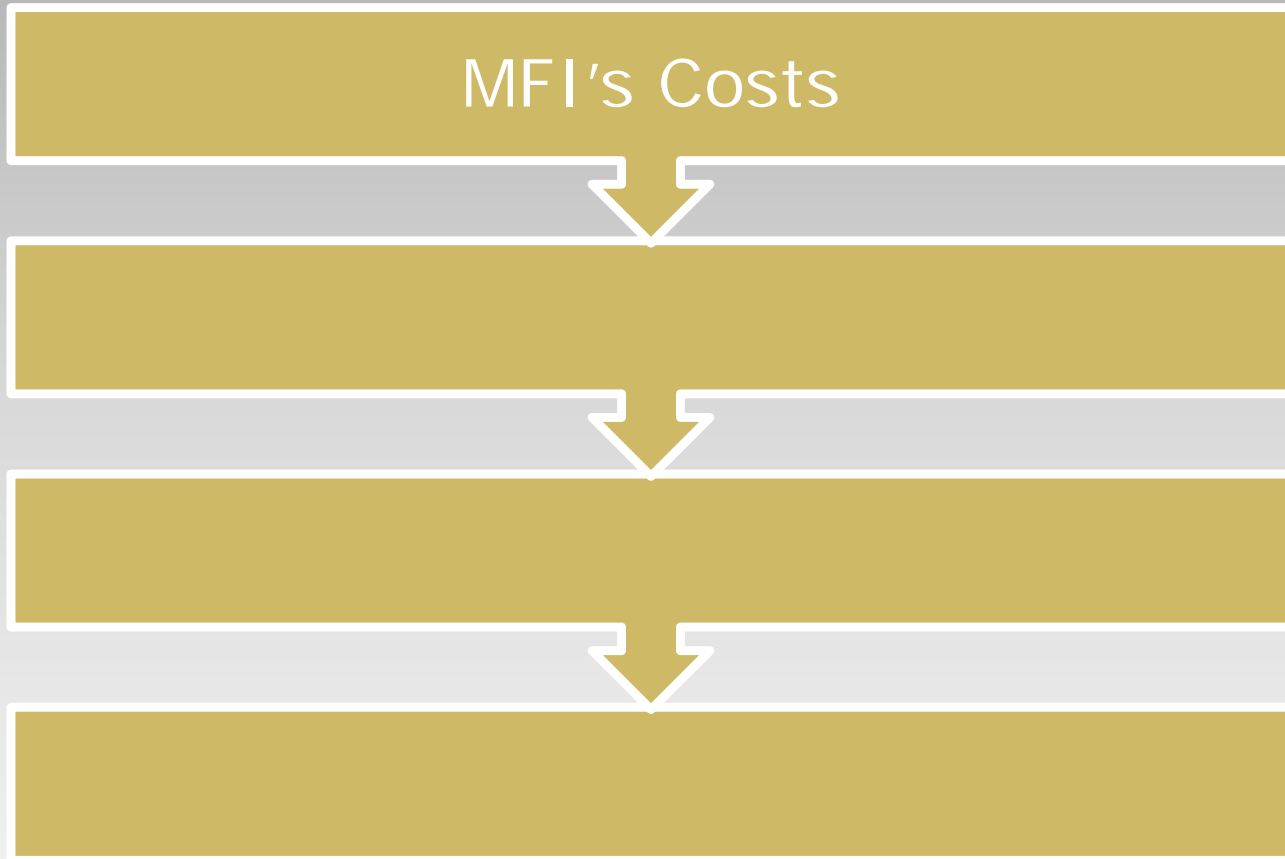
## Realizing that there is a cost curve

Efficiency	1	2	3
Operating Cost per Loan	\$50	\$50	
Loan Size	\$500	\$250	
Operating Cost Ratio	10%	20%	

## Realizing that there is a cost curve

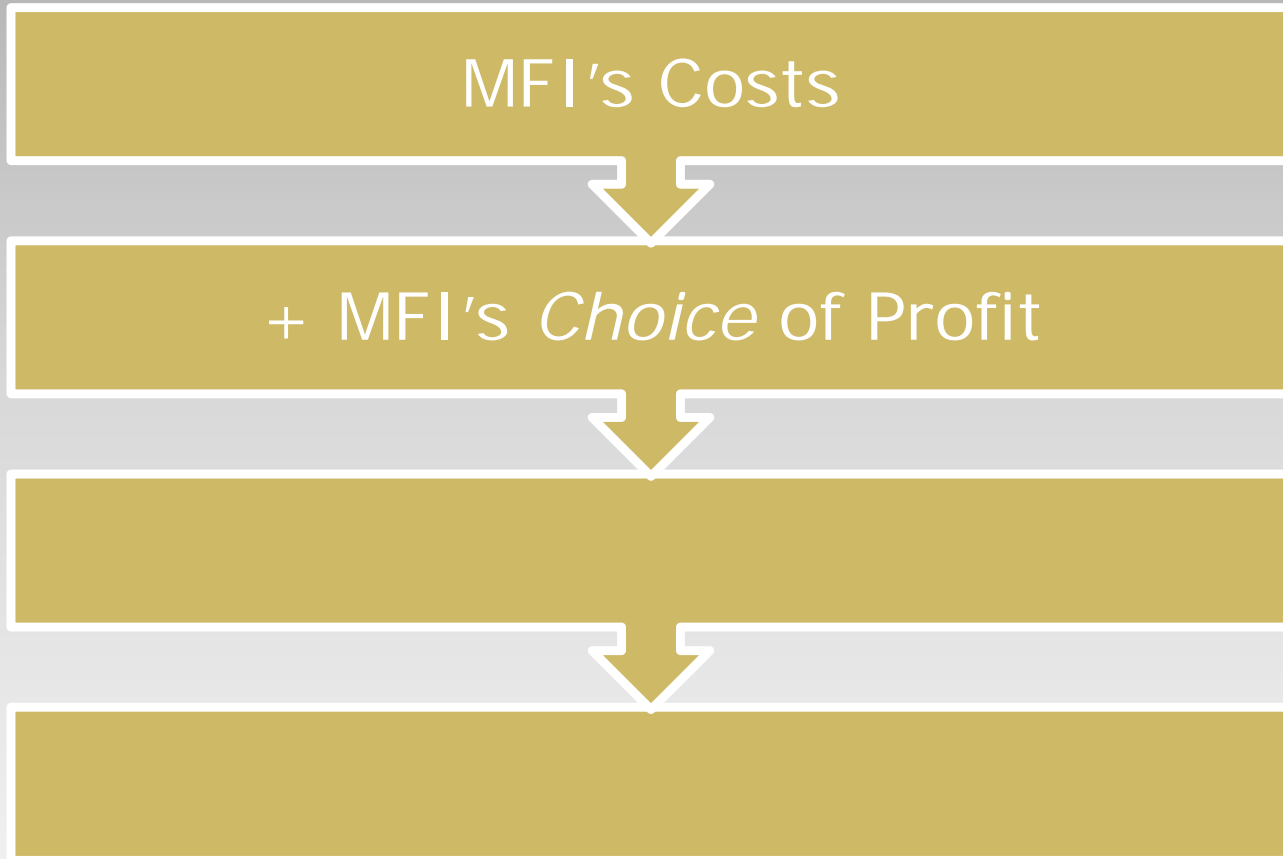
Efficiency	1	2	3
Operating Cost per Loan	\$50	\$50	\$30
Loan Size	\$500	\$250	\$100
Operating Cost Ratio	10%	20%	30%

# Defining a Responsible Price

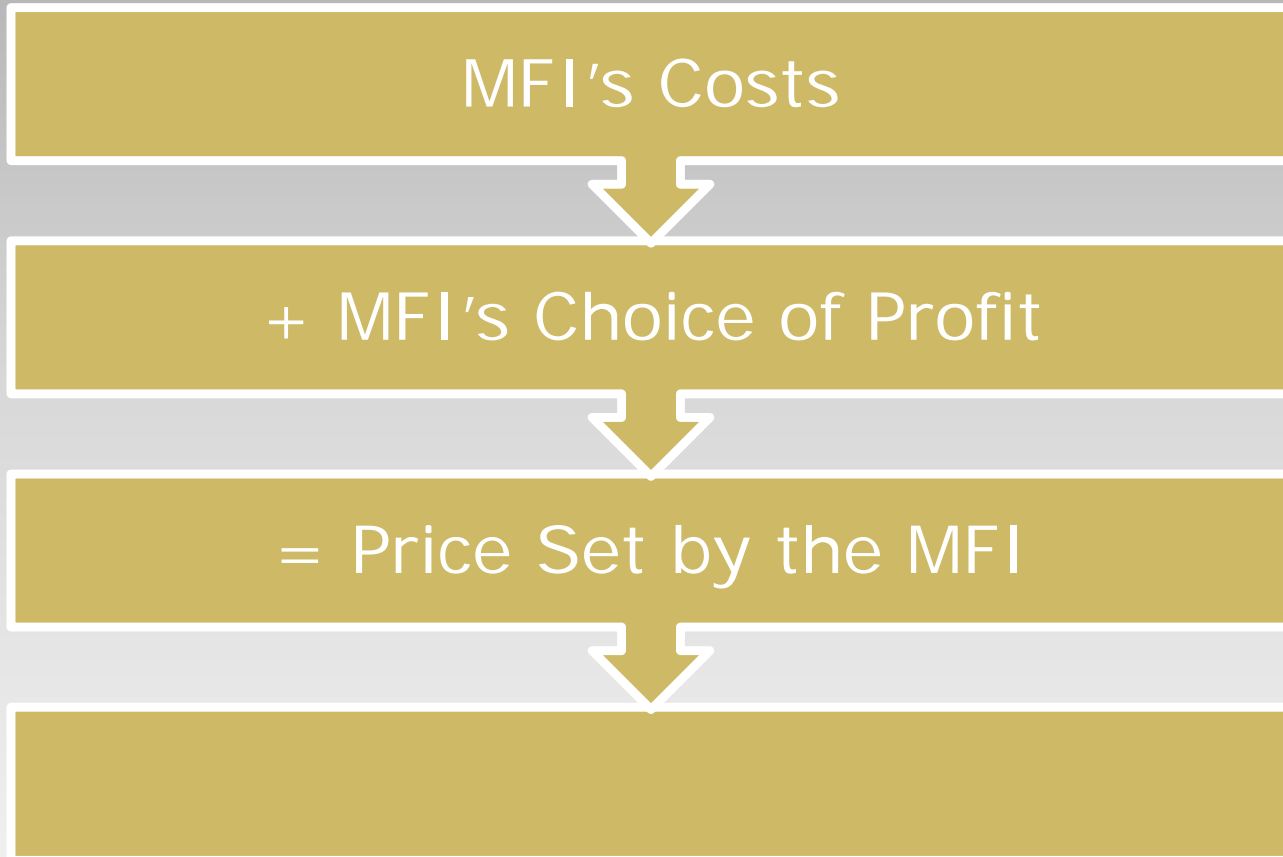




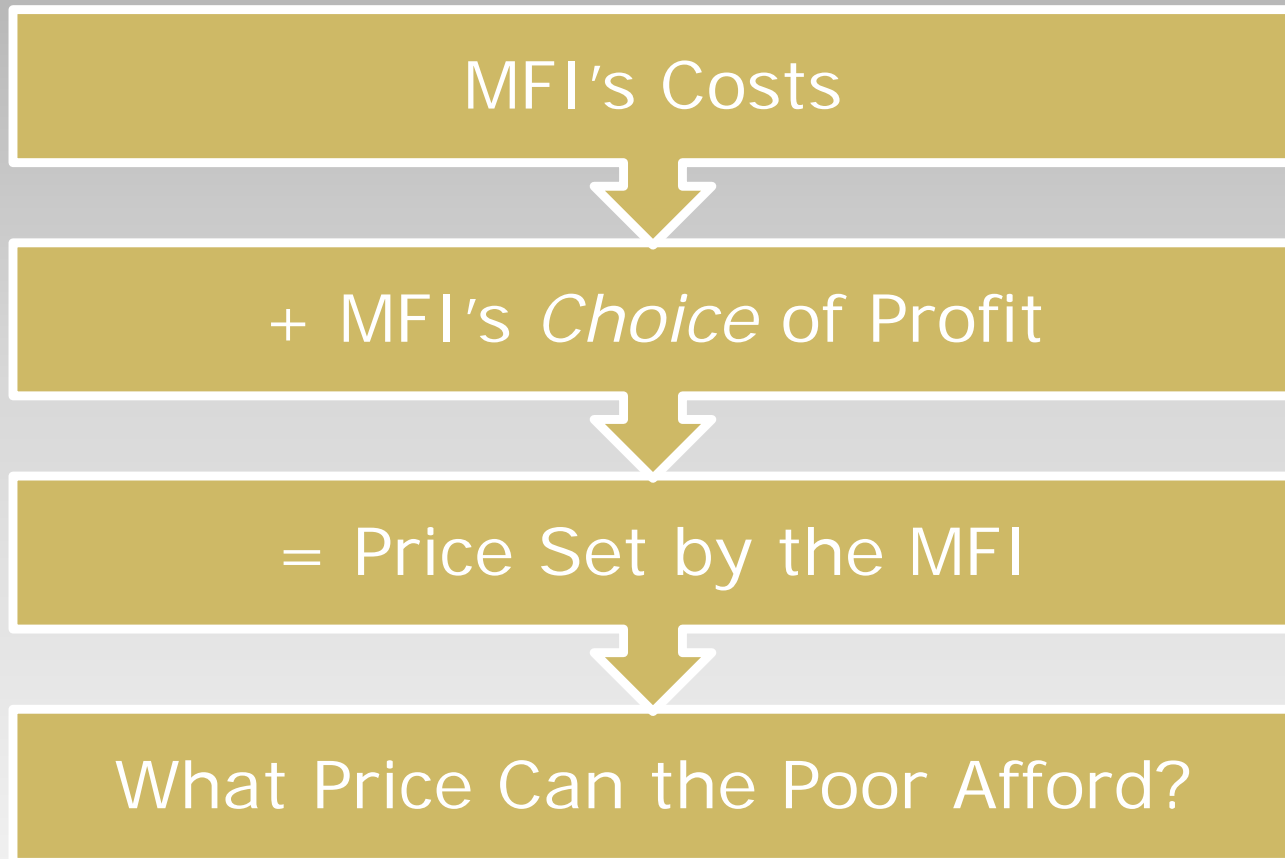
# Defining a Responsible Price



# Defining a Responsible Price



# Defining a Responsible Price





# Promoting Transparent Pricing in the Microfinance Industry

MicroFinance Transparency is an NGO registered in the USA

