

# Foreign Exchange Risk Management in Microfinance

IAMFI Webinar:  
Foreign Currency Considerations in Cross Border  
Microfinance Investments  
November 2008



# Recent Currency Trends



## *Over a 6 month period March through September (all versus USD):*

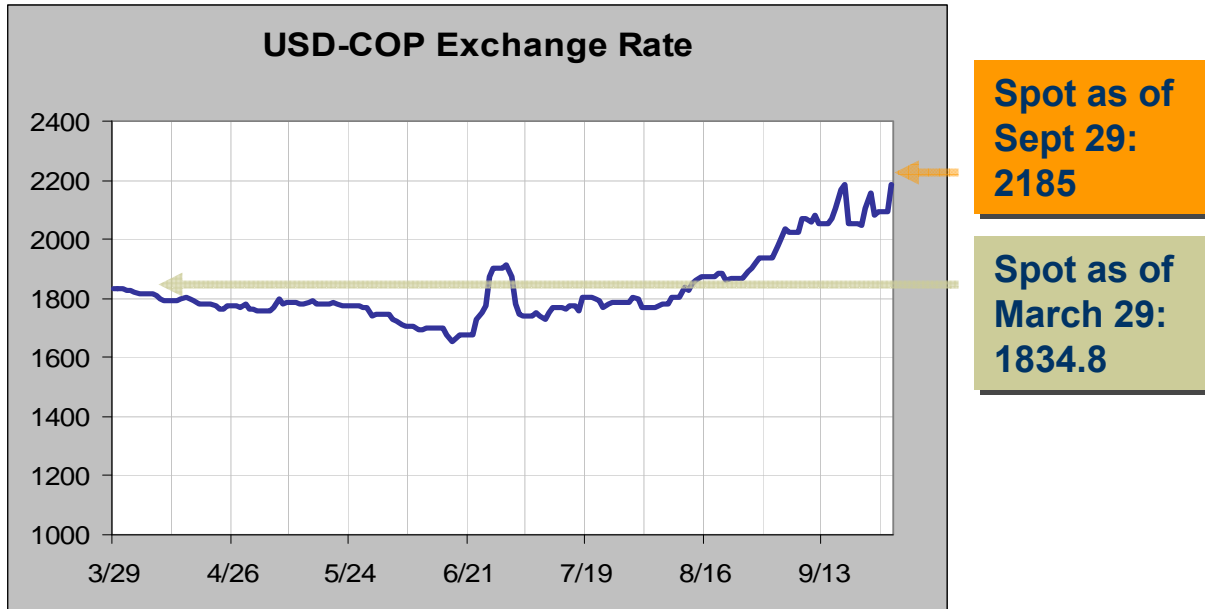
- More than one third of all emerging currencies with significant microfinance investment\* have depreciated 5% or more
- Five currencies have depreciated 10% or more
  - Colombian peso: -16%
  - Ghanaian cedi: -16%
  - India rupee: -15%
  - Kenyan shilling: -14%
  - Philippine peso: -11%
- Over this same time period only 2 currencies appreciated 5% or more
  - Bolivian boliviano: +6%
  - Tanzanian shilling: +6%

*\* Significant microfinance investment is defined as having at least \$5,000,000 invested in 2007 based on CGAP reported data*

# Potential Impact to an MFI



**If an MFI in Colombia received a 6-month USD 1mm 8% loan on March 29th**



Pesos Received at Closing (March 29):  
COP 1.834bb

Pesos Due at Maturity (Sept 29):  
COP 2.272bb



*This would be an effective annual peso rate of 47.7%*



# Potential Impact to an MIV

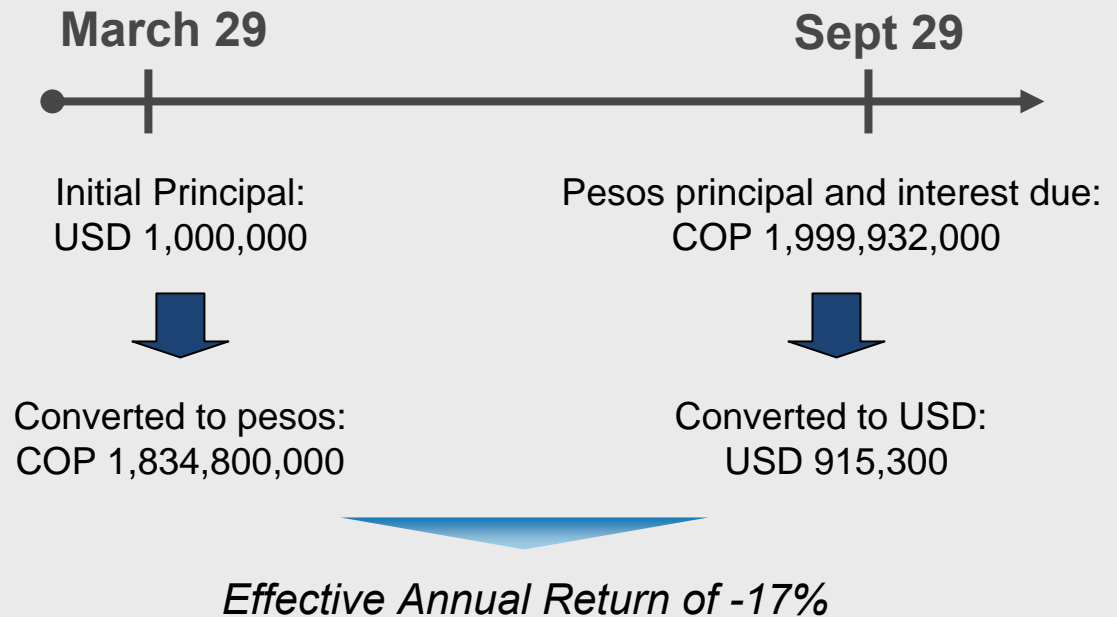
## Increased Default Risk on USD Loans

If an MIV had made a 6-month loan to a Colombian MFI in USD they would have increased default risk due to the devaluation.

**-or-**

## Negative Returns on Local Currency Loans

If an MIV had made a 6-month loan to an MFI in Colombia in pesos with a USD value of \$1mm at 18% on March 29:





# Market Expectation of Currency Movements

## *Forward Rates reflect the market's expectation of the future spot rate*

- *Difference between interest rates in each country is a key driver of the forward rate.*
- *Forward rates can be obtained from traded market quotes for more emerged currencies (such as Russia and Mexico) or can be calculated from the current spot and interest rates.*

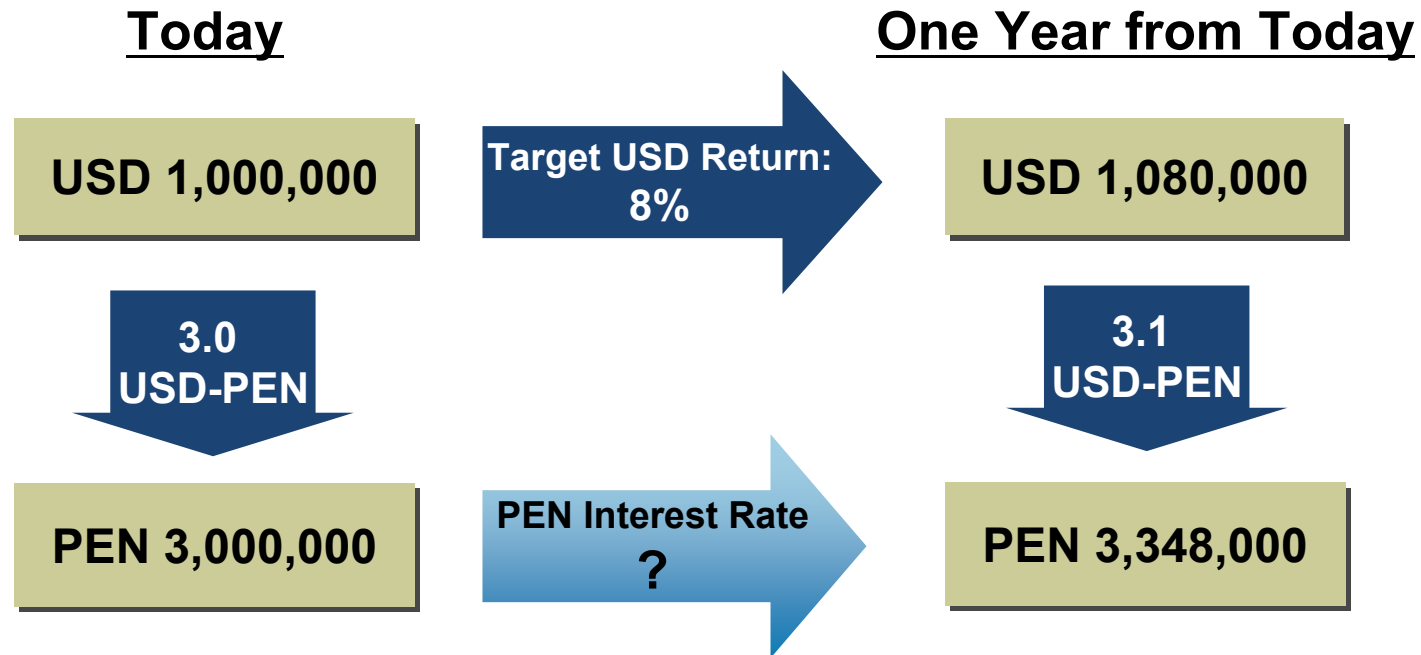
	As of 3/29/2008			As of 9/29/2008	
	Spot	6-Month Forward	Expected Change	Spot	Actual Change
Bolivia	7.47	7.75	▼ 3.6%	7.04	▲ 6.1%
Colombia	1834.8	1897.2	▼ 3.3%	2185	▼ 16.0%
Ghana	.9745	1.0369	▼ 6.0%	1.1595	▼ 16.0%
India	39.91	40.46	▼ 1.4%	46.98	▼ 15.0%
Kenya	62.8	66.13	▼ 5.0%	73.2	▼ 14.2%
Mongolia	1168.3	1175.75	▼ 0.6%	1146.5	▲ 1.9%
Nicaragua	19.126	19.805	▼ 3.4%	19.604	▼ 2.4%
Philippines	41.8	42.275	▼ 1.1%	46.807	▼ 10.7%
Tanzania	1231.5	1317.0	▼ 6.5%	1165	▲ 5.7%

▲ Indicates appreciation ▼ Indicates depreciation



# Determining a Local Interest Rate

*Given a target USD return, you can determine an equivalent local interest rate that incorporates market expectations of the currency movements.*

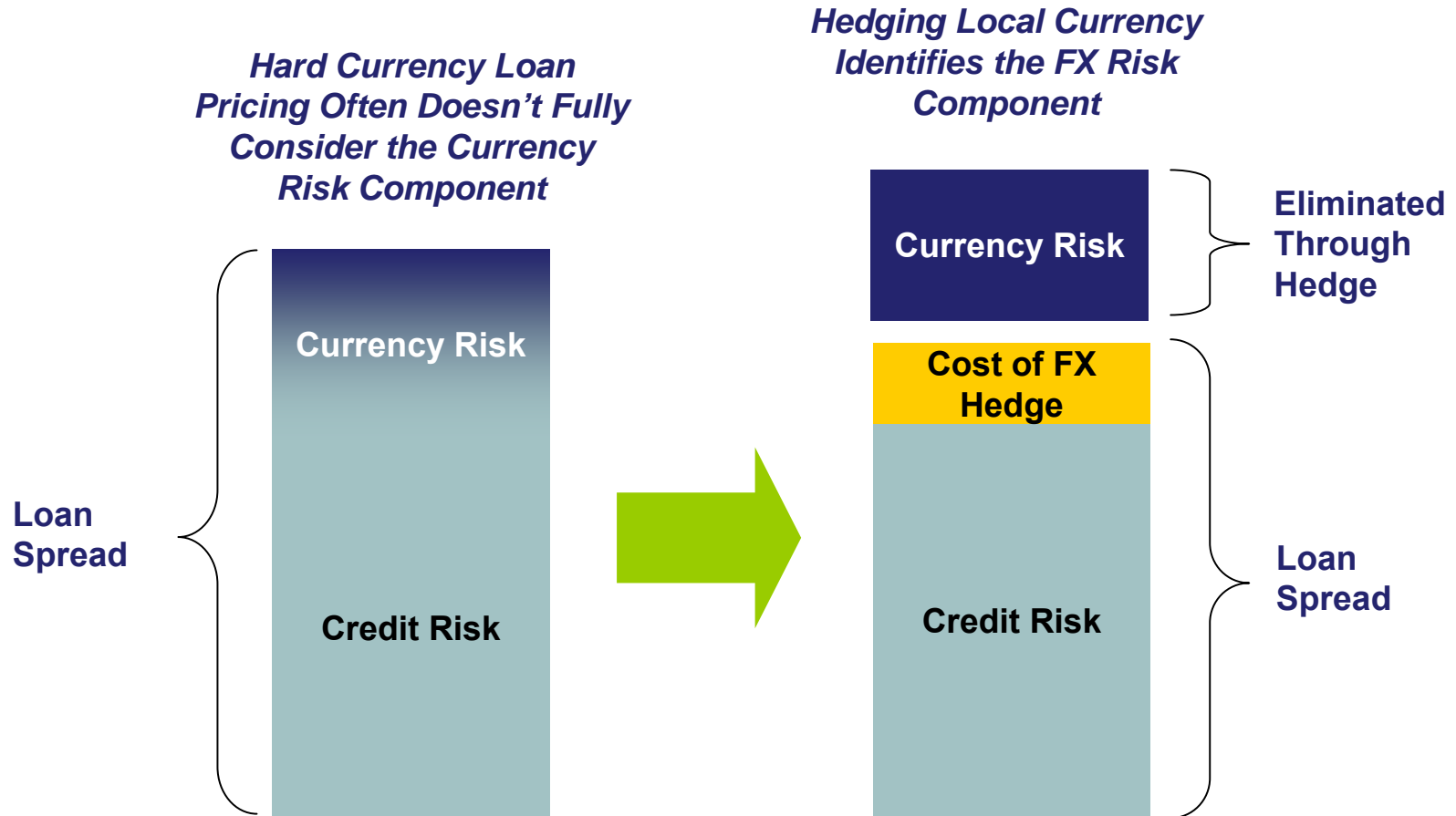


***A PEN interest rate of 11.6% achieves an 8% USD return***



# Benefits of Local Currency Funding

*Separating the currency risk from the credit risk creates more transparent loan pricing.*





# Types of Hedging Products

## ➤ **FX forwards**

- Obligation to exchange one currency for another at a specific date in the future

## ➤ **FX options**

- Agreement giving the purchaser the right to exchange one currency for another at a specific date in the future

## ➤ **Everything else**

- FX Forwards and FX Options are the building blocks of FX derivatives. Other products are simply a combination of forwards and/or options



# FX Forwards

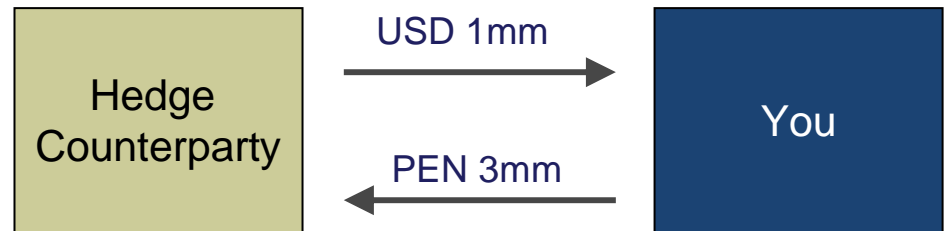
*An FX forward is an obligation to exchange one currency for another at a specific date in the future*



**On the *Trade Date*, counterparties agree to a future exchange of:**

- A specified amount of one currency for another
- At a specified rate (Forward Rate)
- On a specific date in the future (Settlement Date)

**On the *Settlement Date*, counterparties make the exchange:**

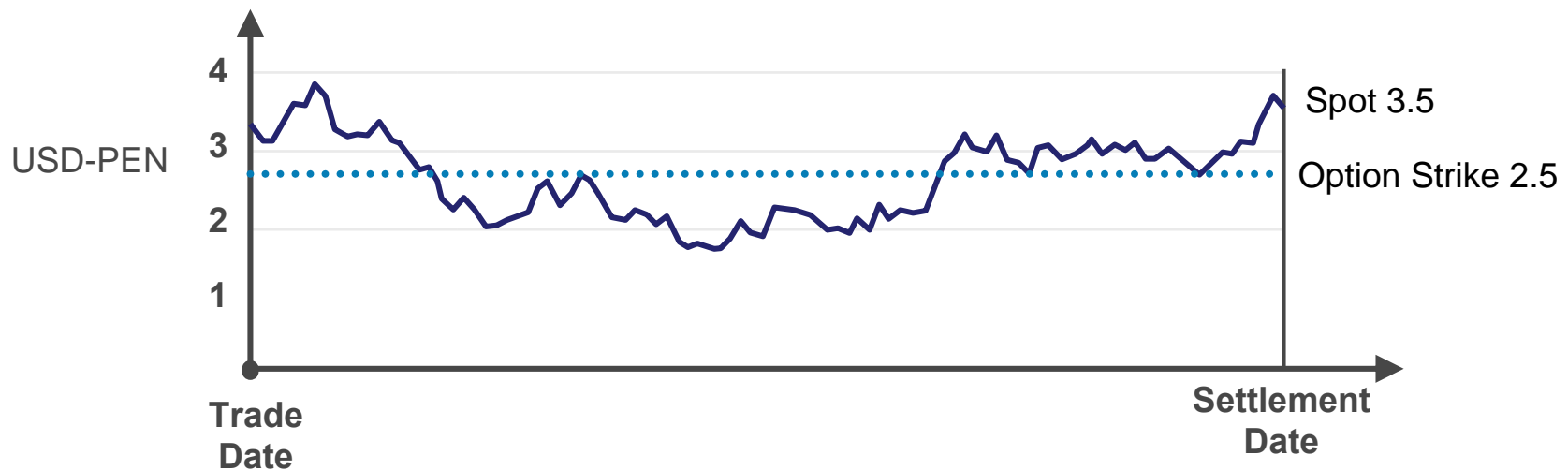




# FX Options

*An FX option gives the purchaser the right, but not the obligation, to exchange one currency for another at a specific date in the future.*

**Example Option to sell PEN and buy USD**



**On the *Trade Date*, counterparties agree to exchange:**

- A specified amount of one currency for another
- At a specified rate
- On a specific date in the future

**On the *Settlement Date*,**

- If it is in the option owner's favor to make the exchange, the exchange will be made.
- If it is not in the option owner's favor to make the exchange, the option will expire worthless

# Cross Currency Swaps



*A cross currency swap is made up of a series of FX forwards*

## 1. Initial Exchange



## 2. Interim Exchanges



## 3. Final Exchange





# Comparison of Hedging Products

	FX Forwards	FX Options	Cross Currency Swaps	Notes
Initial Cost	NO	YES	NO	➤ Options require a cash payment up-front
Ability to benefit from positive currency moves	NO	YES	NO	➤ Options provide protection against unfavorable rate moves but allow the purchaser to benefit from moves in their favor
Liability Risk / Credit Requirement	YES	NO	YES	➤ Forwards and currency swaps may become a liability ➤ Options never become a liability to the purchaser
Availability	MEDIUM	LOW	MEDIUM	➤ Some currencies have forward markets available but do not have an options market
Complexity	LOW	LOW	MEDIUM	➤ A cross currency swap has similar characteristics to a forward with some additional complexity

# Foreign Exchange Risk Management in Microfinance

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