



## 2019 Boulder Microfinance Training (MFT) Course Syllabus

<b>Course:</b>	<b>How to Set Interest Rates and Analyze Associated Risks</b>
<b>Faculty:</b>	<b>Sousan Urroz-Korori</b>
<b>Affiliation</b>	<b>Boulder Microfinance Institute University of Colorado in Boulder</b>
<b>Dates:</b>	<b>Week 2 (July 29 – August 2, 2019)</b>
<b>Time:</b>	<b>Morning (10:30am-1:00pm)</b>
<b>Language:</b>	<b>English</b>

### Course Description

This five- day intensive module focuses on understanding all aspects of interest rate charges and the risks<sup>1</sup> associated with costing financial products, both from an investor’s point of view and the microfinance institution’s (MFI). We dissect the reasoning behind the high cost of products in MFIs, emphasizing on how to reduce them in order to have a better impact on poverty reduction while assuring MFIs are fully sustainable.

We also focus on the currency risk exposure faced by foreign investors and MFIs when the original investment or capital is in a hard currency, such as U.S. dollars.

Microfinance institution like any other investor is risk averse, it takes great care to analyze and measure risks associated with its required rate of return (RRR). Our objective is to gain a clear understanding of all the risks associated with RRR, so that we are able effectively to calculate the interest rate MFI charges its clients, and to cost financial products more precisely. If an MFI is able to cost its products more accurately, it is able to provide investors a higher level of certainty on their promised return (s) and in return to assure MFI’s sustainability, especially in the long-run.

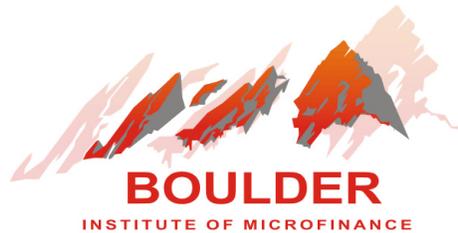
Emerging market currencies are characterized by low level of transaction activity, sudden dramatic fluctuations (often depreciations) in the currency exchange rates, central bank restrictions, interventions and shallow financial markets. The currency risk exposure<sup>2</sup> faced by foreign investors and the MFIs play a significant role in costing our financial products, especially now, given the volatility of major currencies in the last couple of years relative to U.S. dollar. We spent time in

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Risk is a measure of the degree of uncertainty associated with the return on one asset relative to an alternative asset.

<sup>2</sup> Currency risk arises from the mismatch between the assets held by an MFI (denominated in the local currency of the MFI’s country of operation) and the loans that fund its balance sheet.



analyzing this risk, trying to measure it, and look at a few practical hedging options and their limitation.

## Objectives

The objective of this course is to understand the nature of interest rates and their associated risks. We then link this understanding to product pricing mechanisms that will serve as tools to allow the MFI to remain viable while offering properly priced and competitive products that also protect borrowers (clients) from overpricing.

## Prerequisites

Financial literacy

## Audience

Management, Regulators including central bankers, and the investing community.

## Methodology

Through lectures, mini case examples, and class discussions we examine current product costing mechanism and methodologies in practice, contrasting different approaches and deciding which model is more appropriate, given the risk level, and the macroeconomic conditions of the country that MFI operates in. For a hand on approach, participants, in groups, use one of these methods to determine interest rate that an existing MFI should charge, given country's risk factors.



## Reading List

1. Pablo Fernandez, Mar Martinez and Isabel F. Acin, Market Risk Premium and Risk-free rate used for 69 countries in 2019; a survey. March 23,2019, Pablo Fernández [fernandezpa@iese.edu](mailto:fernandezpa@iese.edu)
2. Mehrotra & Yetman, Financial Inclusion issues for central banks, Bank of International Settlement (BIS), BIS Quarterly Review March 2015 [http://www.bis.org/publ/qtrpdf/r\\_qt1503.pdf](http://www.bis.org/publ/qtrpdf/r_qt1503.pdf)
3. Olga Tomilova, Edlira Dashi, International Funding for Financial Inclusion, CGAP Publication, December 19, 2017.
4. Microcredit Interest Rates, Occasional Paper, (Revised November 2002), CGAP Washington D.C. <https://www.cgap.org/sites/default/files/CGAP-Occasional-Paper-Microcredit-Interest-Rates-Nov-2002.pdf>
5. Urroz-Korori, “Yes, microfinance is an effective way to reduce poverty in developing countries” ABC-Clio, Praeger Imprint, Spring 2013.
6. Rosenberg, Gaul, Ford, Tomilova, Microcredit Interest Rates and their Determinants, Access to Finance Forum, reported by CGAP and its partners No. 7, June 2013 <http://www.cgap.org/sites/default/files/Forum-Microcredit%20Interest%20Rates%20and%20Their%20Determinants-June-2013.pdf>
7. Porteous, Collins, & Abrams, Policy Framing Note 4: Interest Rate Policy, The Financial Access Initiative policy framing note, 2010 (New York University, Harvard, Yale Research Consortium). <http://www.microfinancegateway.org/sites/default/files/mfg-en-paper-interest-rate-policy-jan-2010.pdf>
8. Friendship Bridge, a Colorado base, Guatemala operative rural MFI, Foreign Exchange Risk analysis, 2015 with revisions in 2019.
9. Urroz-Korori, Equity Bank of Kenya, short case on product costing, 2012.



## Course Outline

<b>Day 1 :</b>	Introduction of financial risk management, an overview of all the players; investors, MFIs, clients, and the intermediaries. What are the costs associated to delivering a financial product? Why microfinance products are expensive? We start this day with a very fast review of official financial reports, based on generally acceptable accounting principles (GAAP).
<b>Day 2 :</b>	Liquidity management--default risk - Measuring liquidity on the balance sheet, the basic concept of working capital, integrating liquidity into risk management, assessing liquidity needs including sources and usage of funds, understanding better the risk associated with volatile cash position, investing excess funds, reducing asset -liability mismatch, and managing liquidity in multiple currencies. Group work--investigating the methodology that an existing MFI uses in assessing its cost and pricing its products (interest rate charges).
<b>Day 3 :</b>	Introduction to foreign Exchange risk management for the MFIs with foreign currency liabilities, country risk in dollarized economies and sovereign debt crisis, how to price financial products given national and international currency problems and how to use simple, practical, hedging mechanism against foreign exchange risk, an alternative analysis. We also examine the impact that large remittance has on local currency and its particular effect on financial reporting of MFI's gains and losses.
<b>Day 4 :</b>	Macroeconomics risks associated with inflation, budget deficit, discount rates and their impact on product costing. Calculating costs and setting sustainable interest rate, Analysis of weighted average cost of capital (WACC), (deposits, loans & equity—diversification of funding instruments and sources), desired capitalization rate, investment income rate, and re-calculation of interest rate. We conclude this session by giving many examples of product costing methods MFIs currently are using, discussing pros and cons of these methodologies.
<b>Day 5 :</b>	When and how microfinance institution can go to the international capital market, its limitation, tapping on new sources of funds while assuring financial stability and growth in the long run. <ul style="list-style-type: none"> <li>• Groups present and share their findings on current MFIs costing mechanism.</li> </ul>