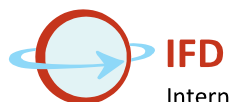# Addressing crisis situations:

Recommended
Risk Management practices for MFIs
to address reputational, liquidity and
other important risks

Dr. Birgit Galemann,
International Finance Development
and
Business & Finance Consulting

IFD
International Finance Development

bfc

Business & Finance Consulting

- A financial institution can minimize reputational risk by creating and then sustaining the trust of
  - existing and new clients
  - existing and new refinancing partners
- How to achieve this? By ensuring all cash outflow commitments can be met at any time
- Need for an efficient Asset Liability Management (ALM) process between
  - Branches and Head Office (short term)
  - Consolidated level and the market (short and medium term)

■ **In particular liquidity risk has to be managed well**

i. Ensuring all cash outflow commitments can be met at any time means

Creating partner's TRUST!

➢ punctual payment of all obligations on loans received by the MFI

➢ on time disbursement of all confirmed loans - renewed or new ones

Creating client's TRUST!

➢ instantaneous re-payment of voluntary client's deposits *(SACCOS & MDIs only)*

ii. Minimizing costs of forgone earnings on idle cash for future periods implies

➢ *forecasting* cash inflows versus outflows *across branches* so that

➢ Liquidity Ratio = (cash at start of period plus inflows) /outflows ~ 100%

- Then Clients / members will benefit twofold:
  - Trust in the institution increases as all members confirm that their deposits are accessible at any time
  - The institution itself makes good profits

- However, modelling expected cash in- and outflows is a comprehensive task   **Lot's of work ?**

Not, if: Underlying calculations for branches, HO & consolidated are *automated* - then ALM process becomes easy to adhere to and time saving, i.e. **efficient**

➡ Set up entire Liquidity Mgmt process in 3 Excel workbooks: i) Branch and ii) HO & Consolidated level iii) Interface[(*)]

- **Idea:** Financial and risk managers learn *concepts* and *applications* how to measure, manage and stress test liquidity – a prerequisite for avoiding reputational risk

- As a result a reliable and secure ALM process for the institution is

  - realised in practice and all people involved

    - learn about the underlying concepts "on the job"

    - will adhere to it once underway since the process is

      - straight forward

      - easy to manage being lead by the Excel templates

Let's have a brief look into some templates to see parts of the *process* and risk management *concepts* to be learned

White cells in Liquidity Management Tool are *automatically* derived from reports of the accounting system. They display
  i. current *contractually* expected cash flows and outstanding amounts
  ii. as a first guidance: *automatically* derived *rough* forecasts of *future* cash flows for the first two periods (one week, until end of month)

Start and end date of first forecast period:			Input forecasts of flows			Branch Ladder				Suggested forecasts for cols E&F	
2010	5	3	Nxt N cal. dys from	From N+1. cal. Day						Nxt N cal. days	frm N+1. dy-EOM
2010	5	9	1. day of forecast	until		Length of first period can be maximal 7 calend		Period length:		Length of period in days:	
year	month	day	end of:	May						7	22
INFLOWS			109.131.330	421.148.655				Total:		109.131.330	421.148.655
Loan portfolio		total:	107.892.112	417.085.304		Total amounts over next N days		Percentage btw. 0 and 100		Inflows nxt N dys	Flows N+1. dy-EOM
Exp. Principal Repaym			91.722.274	355.188.599		Schdld Princ Repay	91.722.274			91.722.274	355.188.599
Exp. Interest Repaym			16.169.838	61.896.705		Schdld Intrst Repay	16.169.838			16.169.838	61.896.705
Additional Deposits		total:	0	0		OS voluntary depos	01. Mai 10	direction: u/d	%Chge >=0	Chge OS ovr N dys	Chge frm N+1-EOM
Savings for a purpose			0	0		Svgs for a purpose	60.000.000			0	0
Other Svgs <= X, with X =	2.000.000		0	0		Other Svgs <= X	20.000.000			0	0
Other Savings > X			0	0		Other Svgs > X	200.000.000			0	0
Time deposits (TD)			0	0		Time deposits	252.570.000	new TD, % OS		0	0
Interest from Investments		total:	1.239.218	4.063.351		OS Investments last EOM				Interest over N dys	Int. frm N+1. -EOM
Short-term Investm.			165.667	520.667		Short-term Investm.	71.000.000			165.667	520.667
OUTFLOWS			5.339.380	78.812.839						120.576.880	384.892.839
Loan portfolio, disbursements		Disbrsm. nxt N dys:	0			Scale u/d in col M/N with K26 /L26:				115.170.000	306.080.000
		03. Mai 10 Mo								29.350.000	
		04. Mai 10 Tu								19.250.000	
Withdrawal of Deposits		total:	450.000	0		See above for current total OS		% >= 0		Chge OS ovr N dys	Chge frm N+1-EOM
Other Svgs > X			0	0						0	0
Time deposits (TD)			450.000	0		TD maturng nxt N dys	450.000	%TD rolled ovr:		450.000	0

The financial branch manger needs to fill in only the **blue cells**
With these parameters he/she *fine tunes*
the rough *automatic* forecasts of cash flows resulting in
the __measurement__ of the entire branch's *short term* liquidity

Start and end date of first forecast period:			Input forecasts of flows		**Branch Ladder**			Suggested forecasts for cols E&F	
2010	5	3	Nxt N cal. dys from	From N+1. cal. Day				Nxt N cal. days	frm N+1. dy-EOM
2010	5	9	1. day of forecast	until				Length of period in days:	
year	month	day	end of:	May	Length of first period can be maximal 7 calend Period length:			7	22
INFLOWS			106.796.203	422.452.754			Total:	106.796.203	422.452.754
Loan portfolio		total:	104.425.244	414.814.338	Total amounts over next N days	Percentage btw. 0 and 100		Inflows nxt N dys	Flows N+1. dy-EOM
Exp. Principal Repaym			87.136.160	348.084.827	Schdld Princ Repay	91.722.274	95%	87.136.160	348.084.827
Exp. Interest Repaym			15.361.346	60.658.771	Schdld Intrst Repay	16.169.838	98%	15.361.346	60.658.771
Additional Deposits		total:	1.131.425	3.571.868	OS voluntary depos	01. Mai 10	direction: u/d %Chge >=0	Chge OS ovr N dys	Chge frm N+1-EOM
Savings for a purpose			300.000	947.571	Svgs for a purpose	60.000.000	up 0,50%	300.000	947.571
Other Svgs <= X, with X =	2.000.000		200.000	634.857	Other Svgs <= X	20.000.000	up 1,00%	200.000	634.857
Other Savings > X			0	0	Other Svgs > X	200.000.000	down 0,25%	0	0
Time deposits (TD)			631.425	1.989.440	Time deposits	252.570.000	new TD, % OS 0,25%	631.425	1.989.440
Interest from Investments		total:	1.239.533	4.066.548	OS Investments last EOM			Interest over N dys	Int. frm N+1. -EOM
Short-term Investm.			165.667	520.667	Short-term Investm.	71.000.000		165.667	520.667
OUTFLOWS			132.394.398	399.033.036				126.721.745	397.712.114
Loan portfolio, disbursements		Disbrsm. nxt N dys:	126.687.000	318.323.200	Scale u/d in col M/N with K26 /L26		122% 105%	121.082.060	317.302.933
	03. Mai 10	Mo	32.285.000					30.856.633	
	04. Mai 10	Tu	21.175.000					20.238.167	
Withdrawal of Deposits		total:	680.000	1.567.500	See above for current total OS		% >= 0	Chge OS ovr N dys	Chge frm N+1-EOM
Other Svgs > X			500.000	1.567.500				500.000	1.567.500
Time deposits (TD)			180.000	0	TD maturng nxt N dys	450.000	%TD rolled ovr: 60%	180.000	0

Managing *short term* Liquidity btw. HO and Branches

If forecasted cash of all branches + HO is *a deficit*

➤ Treasurer needs to liquidate (some of) MFI's short term investments

or

➤ some of the planned loan disbursements need to be restricted

First measure liquidity - then promise loans

		2010	5	3	Nxt N cal. dys from 1. day of forecast	From N+1. cal. Day until
Strt		2010	5	3		
End		2010	5	9		
		...			end of:	May
D	NET disposable Cash HO				89.582.490	7.804.973

Cash transfer *requested* by Branches:

		Underlying OS	as of		
F1	Cash OUT (-) to Br. = HO Int-Br. Debtors	626.682.624	30. Apr 10	-23.000.000	0
F2	Cash IN (+) from Br. = HO Int-Br. Creditors	760.550.772	30. Apr 10	0	46.000.000
	Cummulative flows from Liq. Mgmt as request:			-23.000.000	23.000.000
F	NET Cash HO *according to request* (D+F1+F2)			66.582.490	53.804.973

Cash transfer *realized* for Branches

		Underlying OS	as of		
G1	Cash OUT (-) to Br. = HO Int-Br. Debtors	626.682.624	30. Apr 10	-23.000.000	
G2	Cash IN (+) from Br. = HO Int-Br. Creditors	760.550.772	30. Apr 10	0	46.000.000
	Cummulative flows from Liq. Mgmt as realized:			-23.000.000	23.000.000
G	NET Cash HO after LiqM for Branches (D+G1+G2+G3)			66.582.490	53.804.973

Liquidity Management HO with Market:

		Underlying OS	as of		
H1	Cash OUT (-) / IN (+) via acct "Short-term Investm."	200.000.000	30. Apr 10	-66.000.000	-53.000.000
H2	Cash IN (+) / OUT (-) via acct "Short-term Debt"	0	30. Apr 10		
	Cummulative flows from Liq. Mgmt with Market:			-66.000.000	-119.000.000
H	NET Cash HO after final LiqM (G+H1+H2)			582.490	804.973

Managing *medium term* **Liquidity** on **consolidated level**

▪ Very important to forecast liquidity also for the medium term future:

• in case of a predicted cash shortage, can

i) project **long term (bank) loans**(*) and

ii) start now negotiations with lenders

✓ In this way emergency borrowing via short term debt can be avoided!

2010	5	3	Nxt N cal. Days	Frm N+1. cal. day	Flows btw 1st of month until	
	Outstanding	as of	until end of:	May	30. Jun 10	31. Jul 10
Changes in Assets + Liab			-78.334.257	62.930.680	-131.623.696	-304.336.564
OS Loan portfolio, gross	4.951.755.170	01. Mai 10	-79.101.679	59.523.254	-139.096.838	-206.177.100
Fixed Assets Cash			0	0	0	-730.263.719
...						
Savings & Deposits	1.065.140.000	tot.:	902.850	4.008.737	160.507.738	184.583.899
(Bank) Loans	2.676.681.225	30. Apr 10	0	0	-137.500.000	470.000.000
...						
Income + Expenses			23.220.356	-8.868.760	45.073.676	46.254.602
Financial Income			39.193.827	148.695.790	226.757.862	234.433.887
...						
Financial Expenses		tot.:	6.059.045	26.295.103	38.981.382	31.180.446
Savings + all Time Depos	1.065.140.000	01. Mai 10	2.199.642	6.953.216	10.876.310	12.507.757
...						
Operating Cash Expenses	Expens last mth	as of	tot.:	9.914.427	131.269.447	142.702.803	156.998.839
EOM Expenses	100.109.819	30. Apr 10	0	100.109.819	100.212.402	109.581.330
Irregular Expenses	42.919.597	30. Apr 10	9.914.427	31.159.627	42.490.401	47.417.508
NET CASH FLOW			-55.113.901	54.061.921	-86.550.020	-258.081.962
Opening Cash Balance		Period start	124.000.000	1.386.099	2.448.019	897.999
NET disposable Cash consolidated			67.386.099	55.448.019	-84.102.001	-257.183.963
Outst. in Short-term Investments					184.000.000	0
Outst. in Short-term Debt					0	75.000.000
Managing Liquidity externally:						
Csh OUT (-) /IN (+) via "Sh-term Investm."	150.000.000	30. Apr 10	-66.000.000	-53.000.000	85.000.000	184.000.000
Csh IN (+) /OUT (-) via "Sh-term Debt"	0	30. Apr 10	0	0		75.000.000
NET Cash Consolidated aftr external LiqMgmt			1.386.099	2.448.019	897.999	1.816.037
CB Reserve Ratio. Consolidated			35,4%	35,4%	34.0%	18,1%
Current or Liquidity Ratio, Consolidated			101,8%	101,2%	100,3%	100,4%

With such a tool I wish to address issues I usually find during time spent on-site:

- Processes to manage the MFI in an efficient way are
  - in general not established and /or
  - not lived and controlled, in particular regarding Risk Mgmt (RM)
- Often MFIs are taught about risk management issues but then left alone with the
  - Implementation of appropriate processes in practice
  - Derivation of the underlying calculations
- In the formal financial sector these issues are addressed because they are enforced through regulations
- Let's tailor basic RM concepts also to (unregulated) MFIs!

Contact:

- **Dr. Birgit Galemann**
- International Finance Development
- Managing Director
- 61440 Oberursel, Germany
- Phone: +49 (6171) 58 21 56
- Mobile: +49 (174) 3 36 12 91
- skype: bgalemann
- **E-mail: birgit.galemann@financedev.eu**
- **Website**: **www.financedev.eu**

Thank you for listening