

Adjusting Microfin for the Cashflow Impact of COVID-19

Executive Summary

Papers recently published explore MFI operational and client specific recommendations in response to the Global COVID-19 disease caused by the novel coronavirus pandemic. This paper provides some insight in how to use the financial projection software, Microfin, in determining the MFI financial and cash flow implications once operational decision have been made.

It's all about cash

Business operations can suffer accounting losses for months and even years and still thrive. Amazon and Uber are just two such examples. However, without cash to pay employees, suppliers, and eventually financiers, the operations will come to a grinding halt. Thus, MFIs need to project the impact that cash inflows and outflows will have on their business viability and immediately communicate those impact scenarios to lenders, financiers, central banks, with clarity, transparency, and frequency if they are going to survive.

Cash Inflows:

Cash from borrowers

Borrowers are likely going to have a more difficult time paying their loans due to decreased economic activity when governments mandate that individuals “shelter in place” for a period of time. In addition, branches or other physical payment locations may not be open for business, and loan (collection) officers, may be temporarily sidelined as well.

Microfin Implications

In a less severe case, the MFI may just need to adjust the loan loss reserve ratio, the loan write off ratio, and the client retention ratio. The first two items are found on the branch sheet, as shown below:

2	ADV	Branch Projections Worksheet	13	14	15	16	17
3	Mode		Jan-20	Feb-20	Mar-20	Apr-20	May-20
		Loan Loss Provision and Write-off					
1958							
1960							
1961	10.01	Go to Inst.Cap.					
1962	10.02	Annual Write-off Ratio					
1963	10.03	Term Ln Prod 1: Microloan				20.0%	
1976	10.16	Annual Write-off Ratio [Output]					
1977	10.17	Term Ln Prod 1: Microloan	1.0%	1.0%	1.0%	20.0%	20.0%
1990	10.30						
1991	10.31	Reserve Ratio					
1992	10.32	Term Ln Prod 1: Microloan				25.0%	
2005	10.45	Reserve Ratio [Output]					
2006	10.46	Term Ln Prod 1: Microloan	6.3%	6.3%	6.3%		
2019	10.59						
2020	10.60	Loan Loss Provision *	1,688,660	1,502,680	1,304,065	40,580	
2034	10.74	Loan Write-off	(127,852)	(148,498)	(166,410)	(3,610)	
2048	10.88	Ending Loan Loss Reserve	11,226,437	12,580,619	13,718,274	50,610	
2077							

Reserve Ratio
Enter the target number, defined as loan loss reserve as a percentage of gross outstanding portfolio.

Adjusting Microfin for the Cashflow Impact of COVID-19

The client retention ratio is found on the Product Activity Sheet as shown below:

	C	D	T	U	V	W	X
2	ADV	Term Loan Product Activity Sheet (PAS)	13	14	15	16	17
3	Mode	Microloan	Jan-20	Feb-20	Mar-20	Apr-20	May-20
266		Step 3: Retention rates					
267							
268							
269							
284	4.13						
285	4.14	Target Annualized Client Retention Rate				60%	
286	4.15		90%	90%	90%	60%	60%
287	4.16	Product retention rate per cycle					
288	4.17	First-to-Second Cycle					
289	4.18	Second-to-Third Cycle					
290	4.19	Third-to-Fourth Cycle					
291	4.20	Fourth-to-Fifth Cycle					
292	4.21	Fifth-to-Sixth and Subsequent					
293	4.22	First-to-Second Cycle	95%	95%	95%	77%	77%
294	4.23	Second-to-Third Cycle	95%	95%	95%	77%	77%
295	4.24	Third-to-Fourth Cycle	95%	95%	95%	77%	77%
296	4.25	Fourth-to-Fifth Cycle	95%	95%	95%	77%	77%
297	4.26	Fifth-to-Sixth and Subsequent	95%	95%	95%	77%	77%
299	4.28	% clients reaching sixth cycle	77%	77%	77%	28%	28%

In a more severe case, you may want to model the complete suspension of all loan recoveries. To do this in Microfin, you'll need to be in advanced mode and adjust how Microfin treats the historical loan portfolio:

220	Refinement of Initial Balances													
221	Number of loans maturing													
222	First cycle	11		2,500	0	0	0	0	0	0	2,500	2,500	2,500	2,500
223	Second cycle	11		2,083	0	0	0	0	0	0	2,083	2,083	2,083	2,083
224	Third cycle	11		1,667	0	0	0	0	0	0	1,667	1,667	1,667	1,667
225	Fourth cycle	11		1,250	0	0	0	0	0	0	1,250	1,250	1,250	1,250
226	Fifth cycle	11		417	0	0	0	0	0	0	417	417	417	417
227	Sixth and subsequent cycles	11		417	0	0	0	0	0	0	417	417	417	417
228	Number of loans maturing by month													
229	First cycle		50,000	8,330	8,334	0	0	0	0	0	8,334	8,334	8,334	8,334
230	Second cycle		15,000	2,500	2,500	0	0	0	0	0	2,500	2,500	2,500	2,500
231	Third cycle		12,500	2,085	2,083	0	0	0	0	0	2,083	2,083	2,083	2,083
232	Fourth cycle		10,000	1,665	1,667	0	0	0	0	0	1,667	1,667	1,667	1,667
233	Fifth cycle		7,500	1,250	1,250	0	0	0	0	0	1,250	1,250	1,250	1,250
234	Sixth and subsequent cycles		2,500	415	417	0	0	0	0	0	417	417	417	417
235				2,500	415	417	0	0	0	0	417	417	417	417
236	Initial balance and repayment stream													
237	Auto-generated repayments													
238	First cycle	12		8,570,743	7,142,286	0	0	0	0	0	5,713,829	4,285,371	2,856,914	1,428,457
239	Second cycle	12		7,142,286	5,950,952	0	0	0	0	0	4,760,762	3,570,571	2,380,381	1,190,190
240	Third cycle	12		5,713,829	4,762,476	0	0	0	0	0	3,809,981	2,857,486	1,904,990	952,495
241	Fourth cycle	12		4,285,371	3,571,143	0	0	0	0	0	2,856,914	2,142,588	1,428,457	714,229
242	Fifth cycle	12		1,428,457	1,191,333	0	0	0	0	0	953,067	714,800	476,533	238,267
243	Sixth and subsequent cycles	12		1,428,457	1,191,333	0	0	0	0	0	953,067	714,800	476,533	238,267
244	Principal repayments used in calculations		100,000,000	28,569,143	23,809,524	0	0	0	0	0	19,047,619	14,285,714	9,523,810	4,761,905
245	First cycle			29,997,600	8,570,743	7,142,286	0	0	0	0	5,713,829	4,285,371	2,856,914	1,428,457
246	Second cycle			24,995,143	7,142,286	5,950,952	0	0	0	0	4,760,762	3,570,571	2,380,381	1,190,190
247	Third cycle			20,001,257	5,713,829	4,762,476	0	0	0	0	3,809,981	2,857,486	1,904,990	952,495
248	Fourth cycle			14,998,800	4,285,371	3,571,143	0	0	0	0	2,856,914	2,142,588	1,428,457	714,229
249	Fifth cycle			5,002,457	1,428,457	1,191,333	0	0	0	0	953,067	714,800	476,533	238,267
250	Sixth and subsequent cycles			5,002,457	1,428,457	1,191,333	0	0	0	0	953,067	714,800	476,533	238,267
251				Data Ok										

Adjusting Microfin for the Cashflow Impact of COVID-19

You will also need to consider refinements to the current loan portfolio. First on the Product Design Sheet:

Step 2: Repayment Conditions		Step 2: Define repayment conditions for Microloan														
31		Note: Enter user-defined repayment information on the Product ACTIVITY sheet.														
33 2.01 (1) Repayment frequency		User-defined repayment table														
34 2.02																
35 2.03 (2) Effective Loan Term (months)		Links NOTE: In the Initial Balances column describe the current loan product definition; postpone any redesign of the product until Month 1 or later.														
36 2.04 Input changes in this section																
37 2.05 First cycle		1	12										6	6	6	6
38 2.06 Second cycle		1	12										6	6	6	6
39 2.07 Third cycle		1	12										6	6	6	6
40 2.08 Fourth cycle		1	12										6	6	6	6
41 2.09 Fifth cycle		1	12										6	6	6	6
42 2.10 Sixth and subsequent cycles		1	12										6	6	6	6
43 2.11 Data used in calculations																
44 2.12 First cycle		2	12	12	12	12	12	12	12	12	12	12	6	6	6	6
45 2.13 Second cycle		2	12	12	12	12	12	12	12	12	12	12	6	6	6	6
46 2.14 Third cycle		2	12	12	12	12	12	12	12	12	12	12	6	6	6	6
47 2.15 Fourth cycle		2	12	12	12	12	12	12	12	12	12	12	6	6	6	6
48 2.16 Fifth cycle		2	12	12	12	12	12	12	12	12	12	12	6	6	6	6
49 2.17 Sixth and subsequent cycles		2	12	12	12	12	12	12	12	12	12	12	6	6	6	6

And then on the Product Activity Sheet:

Refine Product Design		This feature is not enabled. To enable it, use the ENAB FEATURES button on the "PageBar" Toolbar.												
Step 2: Repayment Conditions		Refine Microloan												
User-Defined Repayment Schedule		The User-Defined Payment option has been selected on the Product Design Sheet. Click HELP for assistance with this feature.												
Total	First cycle Payment Schedules	Month 0	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
81 100%	First term used (12 mnths)	6	16.7%								16.7%	16.7%	16.7%	16.7%
82 100%	Second term used (6 mnths)	6		16.7%	16.7%	16.7%	16.7%	16.7%	16.7%					
86 100%	Second cycle Payment Schedules													
87 100%	First term used (12 mnths)	6	16.7%								16.7%	16.7%	16.7%	16.7%
88 100%	Second term used (6 mnths)	6		16.7%	16.7%	16.7%	16.7%	16.7%	16.7%					
92 100%	Third cycle Payment Schedules													
93 100%	First term used (12 mnths)	6	16.7%								16.7%	16.7%	16.7%	16.7%
94 100%	Second term used (6 mnths)	6		16.7%	16.7%	16.7%	16.7%	16.7%	16.7%					
98 100%	Fourth cycle Payment Schedules													
99 100%	First term used (12 mnths)	6	16.7%								16.7%	16.7%	16.7%	16.7%
100 100%	Second term used (6 mnths)	6		16.7%	16.7%	16.7%	16.7%	16.7%	16.7%					
104 100%	Fifth cycle Payment Schedules													
105 100%	First term used (12 mnths)	6	16.7%								16.7%	16.7%	16.7%	16.7%
106 100%	Second term used (6 mnths)	6		16.7%	16.7%	16.7%	16.7%	16.7%	16.7%					
110 100%	Sixth and subsequent cycles Payment Schedules													
111 100%	First term used (12 mnths)	6	16.7%								16.7%	16.7%	16.7%	16.7%
112 100%	Second term used (6 mnths)	6		16.7%	16.7%	16.7%	16.7%	16.7%	16.7%					
116 1.37														

In each of these screen shots above, the loans were for six months with a suspension of payments for six months starting in March 2020 and starting back up in September 2020, making a new loan term of 12 months. In September 2020 loans were again being made for 6 months

Cash flows from savers:

Savers probably aren't going to save much during this crisis, but the cash flow implication hits the outflows of savings, discussed below.

Cash flows from investors:

Investors are rightfully nervous during this pandemic. That said, you need to give them all comfort that you are communicating truthfully, frequently, and accurately. You will likely need additional financing during this period, as repayments are not coming from borrowers, and there are likely additional outflows to savers (see below). I am aware that government backed facilities are being established or are already in place in the United States and the United Kingdom to backstop banks. However this may not be the case in many other countries, or the central bank may be more concerned with larger national banks than smaller Microfinance focused institutions. Now is the time to review your lending facilities and make plans for fresh loans or expanding existing facilities with existing sources.

Adjusting Microfin for the Cashflow Impact of COVID-19

Microfin Implications

In Microfin, you will input addition borrowings from existing sources on the Fin Flows sheet:

	C	D	T	U	V	W	X
1	ADV	Financing Flows	13	14	15	16	17
2	Mode		Jan-20	Feb-20	Mar-20	Apr-20	May-20
3	1	Ending rest. resources, operations	0	0	0	0	0
4	2	Ending rest. resources, portfolio	0	0	0	4,891,207	15,774,472
5	3	Ending rest. resources, other assets	0	0	0	0	0
6	4	Ending unrestricted resources avail.	24,451,343	12,039,951	12,268,923	3,000,184	937,305
7	5	Excess/shortfall incl. liquidity requirements	12,564,218	0	0	0	8,786,647
224	3.113	Restricted loans for PORTFOLIO					
227	3.116	Local Bank				20,000,000	
228	3.117	Local Bank, value in Ontis	0	0	(2,500,000)	20,000,000	0
229	3.118	Local Bank: Balance	20,000,000	20,000,000	17,500,000	37,500,000	37,500,000

In the example above, the MFI has successfully negotiated a 20,000,000 increase in the facility from "Local Bank".

Cash Outflows:

Cash flows to borrowers:

You will need to make some difficult decisions regarding how you treat borrower disbursements. In a less severe case, you may consider extending the same amount of a loan to the borrowers instead of increasing that loan size.

Microfin Implications

Adjustments would be done on the Product Design Sheet:

	C	D	T	U	V	W	X
1	ADV	Term Loan Product Design Sheet (PDS)	13	14	15	16	17
2	Mode	Microloan	Jan-20	Feb-20	Mar-20	Apr-20	May-20
9		Step 1: Average loan amount					
10							
12	1.01	(1) Average amounts by cycle					
13	1.02	Input changes in this section					
14	1.03	First cycle	5,000				
15	1.04	Second cycle	6,000			5,000	
16	1.05	Third cycle	7,000			6,000	
17	1.06	Fourth cycle	8,500			7,000	
18	1.07	Fifth cycle	10,500			8,500	
19	1.08	Sixth and subsequent cycles	12,500			11,000	
20	1.09	Data used in calculations					
21	1.10	First cycle	5,000	5,000	5,000	5,000	5,000
22	1.11	Second cycle	6,000	6,000	6,000	5,000	5,000
23	1.12	Third cycle	7,000	7,000	7,000	6,000	6,000
24	1.13	Fourth cycle	8,500	8,500	8,500	7,000	7,000
25	1.14	Fifth cycle	10,500	10,500	10,500	8,500	8,500
26	1.15	Sixth and subsequent cycles	12,500	12,500	12,500	11,000	11,000

Perhaps the sixth and subsequent cycles would be a bit more than the fifth cycle as shown above.

Adjusting Microfin for the Cashflow Impact of COVID-19

You may also want to consider not making any additional loans to those who aren't already borrowers. This is done on the Product Activity Sheet:

	C	D	T	U	V	W	X
2	ADV	Term Loan Product Activity Sheet (PAS)	13	14	15	16	17
3	Mode	Microloan	Jan-20	Feb-20	Mar-20	Apr-20	May-20
254	3.25						
255	3.26	Total number of clients for this product	NOTE: Line 3.28 is using consolidation estimate				
256	3.27	Growth rate from branch estimate	3.5%				
257	3.28	Input (% or actual monthly growth)				-1696	-1709
258	3.29	Monthly growth used in calculations	3.5%	3.5%	3.5%	-1696	-1709
264	3.35	Total number of clients by month *	46,576	48,206	49,893	48,197	46,488

The negative figures are needed to reduce the number of new loans Microfin projects based on client retention. These numbers are found in the reporting section "clients discontinuing this product" in April and May 2020 as shown below.

	C	D	T	U	V	W	X
2	ADV	Term Loan Product Activity Sheet (PAS)	13	14	15	16	17
3	Mode	Microloan	Jan-20	Feb-20	Mar-20	Apr-20	May-20
430	6.76						
432	6.78	Actions of clients with maturing loans	7,373	7,422	7,473	7,523	7,578
433	6.79	Clients immediately renewing	6,994	7,040	7,089	5,827	5,869
436	6.82	Clients discontinuing this product	379	382	384	1,696	1,709

In a more severe case, you may want to suspend all disbursements for all or a portion of clients for a few months. The example below assumes no loan disbursements for 6 months for 100% of the clients.

	C	D	T	U	V	W	X
2	ADV	Term Loan Product Activity Sheet (PAS)	13	14	15	16	17
3	Mode	Microloan	Jan-20	Feb-20	Mar-20	Apr-20	May-20
323	5.02	Delayed disbursement					
327	5.06	Resting by cycle					
328	5.07	Second cycle % resting [Input]				100%	
329	5.08	months [Input]				6	
330	5.09	% resting [Output]	0%	0%	0%	100%	100%
331	5.10	months [Output]	0	0	0	6	6
332	5.11	Third cycle % resting [Input]				100%	
333	5.12	months [Input]				6	
334	5.13	% resting [Output]	0%	0%	0%	100%	100%
335	5.14	months [Output]	0	0	0	6	6
336	5.15	Fourth cycle % resting [Input]				100%	
337	5.16	months [Input]				6	
338	5.17	% resting [Output]	0%	0%	0%	100%	100%
339	5.18	months [Output]	0	0	0	6	6
340	5.19	Fifth cycle % resting [Input]				100%	
341	5.20	months [Input]				6	
342	5.21	% resting [Output]	0%	0%	0%	100%	100%
343	5.22	months [Output]	0	0	0	6	6
344	5.23	Sixth cycle % resting [Input]				100%	
345	5.24	months [Input]				6	
346	5.25	% resting [Output]	0%	0%	0%	100%	100%
347	5.26	months [Output]	0	0	0	6	6

Cash flows to savers:

As mentioned above, savers will probably need some of their liquid savings, and those who don't withdraw all of their savings are probably not going to be saving much during this time.

Adjusting Microfin for the Cashflow Impact of COVID-19

Microfin Implications

In the example below, half of the savers took out all of their funds and those who remained kept their average amount saved balance at the same level. Note that the amount of savings deposits decreased from 22 million to 11 million.

	C	D	T	U	V	W	X
2	ADV	Branch Projections Worksheet	13	14	15	16	17
3	Mode		Jan-20	Feb-20	Mar-20	Apr-20	May-20
1051	6.26	Input (% of borrowers saving)					
1052	6.27	Term Ln Prod 1: Microloan	54%	56%	58%	30%	
1062	6.37	Data used in calculations					
1063	6.38	Term Ln Prod 1: Microloan	54%	56%	58%	30%	30%
1073	6.48	Source 2: Number of non-term borrowers					
1074	6.49	Input (% or actual monthly growth)					
1075	6.50	Segment 1: Indiv Demand				-581	0.0%
1076	6.51	Segment 2: Bus Demand				-221	0.0%
1079	6.54	Monthly growth used in calculations					
1080	6.55	Segment 1: Indiv Demand	1.5%	1.5%	1.5%	-581	0.0%
1081	6.56	Segment 2: Bus Demand	1.0%	1.0%	1.0%	-221	0.0%
1084	6.59						
1085	6.60	Total number of depositors *	26,690	28,555	30,519	15,238	14,726
1086	6.61	Term Ln Prod 1: Microloan *	25,151	26,995	28,938	14,459	13,946
1096	6.71	Segment 1: Indiv Demand *	1,110	1,126	1,143	563	563
1097	6.72	Segment 2: Bus Demand *	429	433	437	216	216
1100	6.75						
		Step 3: Avg savings per depositor					
		Save 1					
1101							
1102	6.76	Input (% or actual monthly growth)					
1103	6.77	Term Ln Prod 1: Microloan				0.0%	
1113	6.87	Segment 1: Indiv Demand				0.0%	
1114	6.88	Segment 2: Bus Demand				0.0%	
1117	6.91	Monthly growth used in calculations					
1118	6.92	Term Ln Prod 1: Microloan	2.0%	2.0%	2.0%	0.0%	0.0%
1128	6.102	Segment 1: Indiv Demand	2.0%	2.0%	2.0%	0.0%	0.0%
1129	6.103	Segment 2: Bus Demand	2.0%	2.0%	2.0%	0.0%	0.0%
1132	6.106	Avg savings amount per depositor *	719.8	726.3	733.2	731.7	736.3
1133	6.107	Term Ln Prod 1: Microloan *	574.3	585.8	597.5	597.5	597.5
1143	6.117	Segment 1: Indiv Demand *	2,297.4	2,343.3	2,390.2	2,390.2	2,390.2
1144	6.118	Segment 2: Bus Demand *	5,169.1	5,272.5	5,377.9	5,377.9	5,377.9
1147							
		Step 4: Review Total Savings Deposits Figures					
		Save 1					
1148							
1149							
1150	6.121	Total Savings Deposits *	19,211,829	20,738,145	22,377,372	11,149,572	10,843,210
1151	6.122	Term Ln Prod 1: Microloan *	14,445,320	15,814,683	17,291,759	8,639,981	8,333,619
1161	6.132	Segment 1: Indiv Demand *	2,549,726	2,639,731	2,732,914	1,345,411	1,345,411
1162	6.133	Segment 2: Bus Demand *	2,216,784	2,283,731	2,352,699	1,164,180	1,164,180
1165	6.136	Percent growth in deposits	8.0%	7.9%	7.9%	-50.2%	-2.7%

Cash flows to investors:

As mentioned above, investors need communication. If investors are not willing to extend more credit, you should inform them of your ability to make good on currently due installments and pay what you can. However you may need to make important decisions as to if you want to be in default with a lender at the expense of employees.

Adjusting Microfin for the Cashflow Impact of COVID-19

Cash flows to employees:

Each MFI should carefully consider what payments to employees can and should be made in this time of crisis. Some may need to lay off some employees, other MFIs may feel an absolute need to retain employees to keep contact with borrowers. Some may need to reduce salaries or suspend salaries for the well compensated executive team.

Microfin Implications

Temporary adjustments to number of employees and the amount that they are paid is done on the branch and head office sheets:

	C	D	T	U	V	W	X
2	ADV	Branch Projections Worksheet	13	14	15	16	17
3	Mode		Jan-20	Feb-20	Mar-20	Apr-20	May-20
2177	13.02	Job description and number [Input]					
2178	13.03	Loan Officers	106.0	114.0	121.0	121.0	121.0
2179	13.04	Sr. Branch Mgr.					
2180	13.05	Jr. Branch Mgr.					
2181	13.06	Accountant/Admin					
2182	13.07	Security					
2183	13.08	Teller/Cashier					
2203	13.28	Job description and number [Output]					
2204	13.29	Loan Officers	106.0	114.0	121.0	121.0	121.0
2205	13.30	Sr. Branch Mgr.	18.0	19.0	20.0	20.0	20.0
2206	13.31	Jr. Branch Mgr.	18.0	19.0	20.0	20.0	20.0
2207	13.32	Accountant/Admin	18.0	19.0	20.0	20.0	20.0
2208	13.33	Security	18.0	19.0	20.0	20.0	20.0
2209	13.34	Teller/Cashier	36.0	38.0	40.0	40.0	40.0
2229	13.54	Total number of branch employees *	214.0	228.0	241.0	241.0	241.0
2230	13.55	Analysis					
2231	13.56	Loan Officers as % total branch staff	50%	50%	50%	50%	50%
2232	13.57	Active loans per branch staffperson *	218	211	207	176	144
2233	13.58						
2234	13.59						
2235	13.60	Monthly Sal&Ben per person [Input]					
2238	13.62	Loan Officers, Entry level					
2239	13.63	Loan Officers, Secondary level					
2240	13.64	Loan Officers, Intermediate level					
2241	13.65	Loan Officers, Senior level					
2242	13.66	Sr. Branch Mgr.					
2243	13.67	Jr. Branch Mgr.					
2244	13.68	Accountant/Admin					
2245	13.69	Security					
2246	13.70	Teller/Cashier					
2266	13.90	Monthly Sal&Ben per person [Output]					
2267	13.91	Loan Officers, Entry level	5,280	5,280	5,280	5,280	5,280
2268	13.92	Loan Officers, Secondary level	5,940	5,940	5,940	5,940	5,940
2269	13.93	Loan Officers, Intermediate level	6,600	6,600	6,600	6,600	6,600
2270	13.94	Loan Officers, Senior level	7,920	7,920	7,920	7,920	7,920
2271	13.95	Sr. Branch Mgr.	13,200	13,200	13,200	13,200	13,200
2272	13.96	Jr. Branch Mgr.	9,900	9,900	9,900	9,900	9,900
2273	13.97	Accountant/Admin	6,600	6,600	6,600	6,600	6,600
2274	13.98	Security	3,300	3,300	3,300	3,300	3,300
2275	13.99	Teller/Cashier	6,600	6,600	6,600	6,600	6,600
2295	13.119	Total salary and expenses					
2296	13.120	Loan Officers	789,360	838,200	884,400	884,400	892,980
2297	13.121	Sr. Branch Mgr.	237,600	250,800	264,000	264,000	264,000
2298	13.122	Jr. Branch Mgr.	178,200	188,100	198,000	198,000	198,000
2299	13.123	Accountant/Admin	118,800	125,400	132,000	132,000	132,000
2300	13.124	Security	59,400	62,700	66,000	66,000	66,000
2301	13.125	Teller/Cashier	237,600	250,800	264,000	264,000	264,000
2321	13.145	Total branch salary and benefits *	1,620,960	1,716,000	1,808,400	1,808,400	1,816,980

Adjusting Microfin for the Cashflow Impact of COVID-19

In the example above, no adjustment to branch staffing was made. The slight increase in salaries reflects additional responsibilities for loan officers as they progress from Entry Level to Secondary Level, and so on.

The head office salaries will be treated a bit differently:

	C	D	T	U	V	W	X	
1	ADV	Head Office Projections		13	14	15	16	17
2	Mode		Jan-20	Feb-20	Mar-20	Apr-20	May-20	
8	Head Office Staffing							
10	1.01	Go to Inst.Cap.						
11	1.02	Job description and number [Input]						
12	1.03	CEO						
13	1.04	CFO						
14	1.05	COO						
15	1.06	Sr. Accountant						
16	1.07	Jr. Accountants						
17	1.08	Sr. Auditor						
18	1.09	Jr. Auditors						
19	1.10	Regional Mgrs.	4.0	4.0	4.0	4.0	4.0	
20	1.11	Sr. MIS/Technology						
21	1.12	Jr. MIS/Technology						
37	1.28	Job description and number [Output]						
38	1.29	CEO	1.0	1.0	1.0	1.0	1.0	
39	1.30	CFO	1.0	1.0	1.0	1.0	1.0	
40	1.31	COO	1.0	1.0	1.0	1.0	1.0	
41	1.32	Sr. Accountant	1.0	1.0	1.0	1.0	1.0	
42	1.33	Jr. Accountants	4.0	4.0	4.0	4.0	4.0	
43	1.34	Sr. Auditor	1.0	1.0	1.0	1.0	1.0	
44	1.35	Jr. Auditors	2.0	2.0	2.0	2.0	2.0	
45	1.36	Regional Mgrs.	4.0	4.0	4.0	4.0	4.0	
46	1.37	Sr. MIS/Technology	1.0	1.0	1.0	1.0	1.0	
47	1.38	Jr. MIS/Technology	3.0	3.0	3.0	3.0	3.0	
63	1.54	Total number of head office employees	19.0	19.0	19.0	19.0	19.0	19.0
64	1.55	Analysis						
65	1.56	Head office staff as % of total staff	8%	8%	7%	7%	7%	
66								
67	1.57	Monthly salary and benefits [Input]						
70	1.59	CEO				0		
71	1.60	CFO				0		
72	1.61	COO				0		
73	1.62	Sr. Accountant				18,150		
74	1.63	Jr. Accountants				15,125		
75	1.64	Sr. Auditor				18,150		
76	1.65	Jr. Auditors				15,125		
77	1.66	Regional Mgrs.				18,150		
78	1.67	Sr. MIS/Technology				18,150		
79	1.68	Jr. MIS/Technology				15,125		
95	1.84	Monthly salary and benefits [Output]						
96	1.85	CEO	48,400	48,400	48,400	-	-	
97	1.86	CFO	42,350	42,350	42,350	-	-	
98	1.87	COO	42,350	42,350	42,350	-	-	
99	1.88	Sr. Accountant	36,300	36,300	36,300	18,150	18,150	
100	1.89	Jr. Accountants	30,250	30,250	30,250	15,125	15,125	
101	1.90	Sr. Auditor	36,300	36,300	36,300	18,150	18,150	
102	1.91	Jr. Auditors	30,250	30,250	30,250	15,125	15,125	
103	1.92	Regional Mgrs.	36,300	36,300	36,300	18,150	18,150	
104	1.93	Sr. MIS/Technology	36,300	36,300	36,300	18,150	18,150	
105	1.94	Jr. MIS/Technology	30,250	30,250	30,250	15,125	15,125	
121	1.110	Total Head Office salary and expense						
122	1.111	CEO	48,400	48,400	48,400	0	0	
123	1.112	CFO	42,350	42,350	42,350	0	0	
124	1.113	COO	42,350	42,350	42,350	0	0	
125	1.114	Sr. Accountant	36,300	36,300	36,300	18,150	18,150	
126	1.115	Jr. Accountants	121,000	121,000	121,000	60,500	60,500	
127	1.116	Sr. Auditor	36,300	36,300	36,300	18,150	18,150	
128	1.117	Jr. Auditors	60,500	60,500	60,500	30,250	30,250	
129	1.118	Regional Mgrs.	145,200	145,200	145,200	72,600	72,600	
130	1.119	Sr. MIS/Technology	36,300	36,300	36,300	18,150	18,150	
131	1.120	Jr. MIS/Technology	90,750	90,750	90,750	45,375	45,375	
147	1.136	Total Head Office salary and expense	659,450	659,450	659,450	263,175	263,175	

In the example above, the executive staff are forgoing their salaries and the other head office personnel have taken a temporary 50% decrease in their salaries.

Adjusting Microfin for the Cashflow Impact of COVID-19

Overall Implications:

The cash flow section of the financial statements shows the potential impact of some of the decisions made above:

	C	D	T	U	V	W	X
1	ADV	Financial Statements	13	14	15	16	17
2	Mode		Jan-20	Feb-20	Mar-20	Apr-20	May-20
185		Cashflow Projections					
186	4.01						
187	4.02	Cash Flows from Operating Activities					
188	4.03	Net Operating Income	(130,856)	1,051,515	1,716,779	(61,962,732)	(446,230)
189	4.04	+ Depreciation and amortization	314,424	333,781	351,722	351,722	351,722
190	4.05	+ Loan loss provisions	3,222,951	3,813,164	4,420,838	67,302,796	5,825,125
191	4.06	- Cash Paid for Taxes	0	0	(358,116)	0	0
192	4.07	- Net change in accrued interest	0	0	0	0	0
193	4.08	+ Loan repayments received	22,894,966	15,286,318	7,556,150	(0)	(0)
194	4.09	- Loan disbursements	(71,728,500)	(72,885,000)	(74,089,000)	0	0
195	4.10	+ Minus Increase in Line-of-Credit Portfolio	0	0	0	0	0
196	4.11	Increase/(Decrease) in credit insurance reserves	0	0	0	0	0
197	4.12	(Increase)/Decrease in short-term invest.	(442,947)	(471,577)	(502,058)	4,104,210	0
198	4.13	Increase/(Decrease) in savings deposits	3,008,625	3,189,453	3,381,352	(30,118,335)	0
199	4.14	(Increase)/Decrease in other current assets	0	0	0	0	0
200	4.15	Increase/(Decrease) in accrued expenses	0	0	0	0	0
201	4.16	Increase/(Decrease) in other current liabilities	0	0	0	0	0
202	4.17	Increase/(Decrease) in other long-term liab.	0	0	0	0	0
203	4.18						
204	4.19	Net Cash from Operating Activities	(42,861,337)	(49,682,345)	(57,522,333)	(20,322,339)	5,730,617
205	4.20						
206	4.21	Cash Flows from Investing Activities					
207	4.22	(Increase)/Decrease in long-term invest.	0	0	0	0	0
208	4.23	(Increase)/Decrease in other assets	(1,227,300)	(709,961)	(659,054)	0	0
209	4.24						
210	4.25	Net Cash from Investing Activities	(1,227,300)	(709,961)	(659,054)	0	0
211	4.26						
212	4.27	Cash Flows from Financing Activities					
213	4.28	Increase/(Decrease) in borrowed funds	5,773,826	50,415,203	58,369,902	9,142,763	(5,914,144)
214	4.29	Increase/(Decrease) in Stock	42,000,000	0	0	0	0
215	4.30	(Dividend payments)	0	0	0	0	0
216	4.31	Donated Equity	0	0	0	0	0
217	4.32	Net Cash from Financing Activities	47,773,826	50,415,203	58,369,902	9,142,763	(5,914,144)
218	4.33						
219	4.34	Net Cash (received)/paid for non-oper. activities	0	0	0	0	0
220	4.35						
221	4.36	Net change in cash and due from banks	3,685,188	22,897	188,515	(11,179,576)	(183,527)
222	4.37						
223	4.38	Cash and Due from Banks, Beginning of the Period	7,912,609	11,747,478	11,920,666	12,260,084	1,230,943
224	4.39						
225	4.40	Effect of Exchange Rate Changes					
226	4.41	+ Indexing expense of Loans Payable	149,681	150,290	150,903	150,435	149,965
227	4.42	- Indexing Income	0	0	0	0	0
228	4.43						
229	4.44	Cash and Due from Banks, End of the Period	11,747,478	11,920,666	12,260,084	1,230,943	1,197,381

Comparing a non-affected month of March 2020 with what may happen in April and May 2020 provides some insight into the need to accurately assess the situation, run scenarios, and make some important, difficult decisions. Once those are made, communicating the likely results to stakeholders will be of utmost importance. Microfin can help in that regard.

Adjusting Microfin for the Cashflow Impact of COVID-19

Conclusion:

Microfin is a useful tool to reflect the financial implications of operational decisions during normal times, however if users are initially comfortable with Microfin and have reconciled its projections with actual results, it becomes an invaluable tool to make adjustments to the business plan and communicate those to important stakeholders in times of crisis.