

MICROVISION MANUAL

A tool for financial and social projections

Version 16.1

microvision



Edited by

BRS - Belgian Raiffeisen Foundation

Muntstraat 1

3000 Leuven

BELGIUM

www.brs.coop



ADA - Appui au Développement Autonome

39 rue Glesener

L-1631 Luxembourg

www.ada-microfinance.org

**Technical support and feedback**

For technical support or feedback, please visit the support section on www.microfact.org

Updated on 21/04/2020

If you do not agree with the terms of this license or with the terms of use, you must resign from further use of **Microvision**.

User license agreement and terms of use

1. All Microvision copyrights are exclusively owned by ADA & BRS
2. BRS (Belgian Raiffeisen Foundation) and ADA - Appui au Développement Autonome have the exclusive authorisation to distribute Microvision through the website: www.microfact.org. No other person or company may distribute Microvision without written permission from the copyright holder
3. You may not copy or distribute Microvision without written authorisation of ADA & BRS
4. All rights not expressly granted here are reserved by ADA & BRS
5. Installing and using Microvision implies acceptance of these terms and conditions of the license
6. Microvision is distributed as is. No warranty of any kind is expressed or implied. You use this software at your own risk. The authors will not be liable for data loss, damages, loss of profits or any other kind of loss while using or misusing this software
7. Online support is offered on www.microfact.org exclusively for the latest versions of Microvision and the MFI Factsheet.

About the Authors

BRS, the Belgian Raiffeisen Foundation, supports microfinance and microinsurance projects in the South to help sustainably improve the quality of life of the poorer population in the South. Not merely with cash, but more specifically by offering advice and dialogue with other stakeholders.

ADA, Appui au Développement Autonome, is a Luxembourg based NGO created in 1994. Its mission is to develop and promote inclusive finance as a means to alleviate poverty throughout the world with a primary focus on the Least Developed Countries. ADA focuses its activities on supporting microfinance institutions.

Over the years, BRS and ADA have joined their expertise to offer tools that focus on building the capacity of MFIs. These tools are distributed on www.microfact.org, a dedicated website, to ensure their promotion within the sector.

Acknowledgements

Many people contributed to the development of Microvision and its handbook. BRS & ADA would particularly like to acknowledge the following people for their contributions:

- Joost de la Rive Box
- Fransien Wolters
- Jarek Chuchla
- Bernadette Verhoeven
- Bart De Bruyne
- Marina Abboud
- Chuck Waterfield
- Staff of ADA and BRS
- All the volunteer testers who provided valuable remarks and comments to the current version of Microvision.

History of the product development

The tool for financial projections was first developed by the consultant, Joost de la Rive Box, in a joint venture between ICCO/Terrafina and the Dutch Microfinance Platform (NPM).

In a second phase of its development, ICCO/Terrafina improved the tool in cooperation with the consultants Bernadette Verhoeven and Bart De Bruyne.

In the third phase which started in 2015, Microfact took Microvision over from ICCO/Terrafina and together with Bernadette Verhoeven and Bart De Bruyne further adapted it. Great gratitude belongs to all the participants of the Microvision Pilot Workshop, which took place from 5th to 9th of November 2018 in Leuven, as they provided huge amount of very valuable remarks and ideas for the further improvement.

All this feedback, which was focused on increasing accuracy, transparency and ease of use of Microvision, has been processed by Chuck Waterfield, Marina Abboud and Jarek Chuchla and resulted in the version 16.0.7 of the tool and officially released on the Microfact website in May 2019. After almost a year of use by hundreds of professionals worldwide, Microfact team has consolidated all the suggestions for improvement and decided to release this current version 16.1 and adapt this manual accordingly. Among many new features in the 16.1 version, the most important are additional reimbursement frequency options. This corresponds better to the reality of the inclusive finance sector.

Content

| | | |
|----------|--|-----------|
| 1 | INTRODUCTION | 6 |
| 1.1 | MICROVISION – A SIMPLE TOOL FOR FINANCIAL AND SOCIAL PROJECTIONS | 6 |
| 1.2 | KEY FEATURES OF MICROVISION: | 6 |
| 1.3 | WHY A FINANCIAL AND SOCIAL PROJECTION TOOL? | 6 |
| 1.4 | WHY KEEP THE FINANCIAL AND SOCIAL PROJECTION TOOL SIMPLE? | 7 |
| 1.5 | INSTALLATION | 8 |
| | REQUIRED SYSTEM | 8 |
| | USING THE SOFTWARE FOR THE FIRST TIME | 8 |
| 1.6 | HANDBOOK | 9 |
| | PRACTICAL INFO ABOUT THIS MANUAL AND MICROVISION | 9 |
| 1.7 | QUICK VIEW: HOW TO GENERATE PROJECTIONS WITH MICROVISION | 10 |
| | STEP 1: Think about your main strategic orientation | 10 |
| | STEP 2: Collect and enter historical data | 11 |
| | STEP 3: Enter the intended strategic assumptions | 11 |
| | STEP 4: Adapt the assumptions in order to get a balanced and feasible result | 12 |
| | STEP 5: Develop scenarios | 12 |
| 2 | STEP 2: COLLECT AND ENTER HISTORICAL DATA | 13 |
| 2.1 | FILLING IN THE IDENTIFICATION SHEET | 13 |
| 2.2 | IMPORTING AN MFI FACTSHEET | 15 |
| 2.2.1 | No historical data available | 16 |
| 2.2.2 | Button “Import MFI Factsheet” | 16 |
| 2.2.3 | Select MFI Factsheet | 16 |
| 2.2.4 | Importing data from the MFI Factsheet | 16 |
| 2.3 | IN THE ABSENCE OF AN MFI FACTSHEET | 17 |
| 2.4 | IMPORTING FROM AN EARLIER VERSION OF MICROVISION | 17 |
| 2.5 | SIMPLIFIED PROJECTION | 17 |
| 2.5.1 | Include a simplified projection | 18 |
| 2.5.2 | Remove the simplified projection | 19 |
| 3 | STEP 3: ENTER THE INTENDED STRATEGIC ASSUMPTIONS | 20 |
| 3.1 | LOAN PRODUCTS SHEET | 20 |
| 3.1.1 | Layout of the Loan Products sheet: | 21 |
| 3.1.2 | Loan Repayment | 22 |
| 3.1.3 | Loan Pricing | 23 |
| 3.1.4 | Product Activity in Year 0 | 24 |
| 3.1.5 | Social Indicators | 26 |
| 3.2 | PROJECTING GROWTH IN LOAN PORTFOLIO | 26 |
| 3.2.1 | Borrower activity | 27 |
| 3.2.2 | Portfolio activity | 29 |
| 3.2.3 | Staff required | 29 |
| 3.2.4 | Portfolio Quality | 30 |
| 3.2.5 | Total Loan Information | 31 |
| 3.3 | ENTER ASSUMPTIONS ON INCOME | 32 |
| 3.3.1 | Interest rate information | 32 |
| 3.3.2 | Loan product pricing | 33 |
| 3.3.3 | Total income for all loan products | 34 |
| 3.3.4 | Insurance Fund Income and Payout | 34 |
| 3.3.5 | Other income | 35 |

| | | |
|----------|---|-----------|
| 3.4 | REVIEW THE LOAN DETAIL SHEET (OPTIONAL) | 36 |
| 3.5 | ENTER ASSUMPTIONS ON SAVING PRODUCTS..... | 38 |
| 3.5.1 | <i>Depositors, average amount, and total deposits</i> | 38 |
| 3.5.2 | <i>Financial costs and fee income of savings</i> | 40 |
| 3.5.3 | <i>Calculation of reserves and of total clients</i> | 41 |
| 3.6 | ENTER ASSUMPTIONS ON SEASONALITY (OPTIONAL) | 43 |
| 3.6.1 | <i>Loan product seasonality</i> | 43 |
| 3.6.2 | <i>Savings product seasonality</i> | 43 |
| 3.7 | ENTER ASSUMPTIONS ON STAFF | 45 |
| 3.7.1 | <i>Branches and loan officers</i> | 45 |
| 3.7.2 | <i>Staffing requirements</i> | 45 |
| 3.7.3 | <i>Salaries and bonus payments</i> | 46 |
| 3.7.4 | <i>Staffing statistics</i> | 48 |
| 3.8 | ENTER ASSUMPTIONS ON OTHER COSTS..... | 49 |
| 3.8.1 | <i>Option 1 : Projecting other costs with comprehensive administrative expenses</i> | 49 |
| 3.8.2 | <i>Option 2 : Projecting other costs with separate head office and branch-level administrative expenses</i> | 50 |
| 3.8.3 | <i>Options 3: Projecting other costs with individual branch-level administrative expenses</i> | 51 |
| 3.8.4 | <i>Other expense categories</i> | 52 |
| 3.9 | ENTER ASSUMPTIONS ON INVESTMENTS | 53 |
| 3.9.1 | <i>Investment in new branches</i> | 53 |
| 3.9.2 | <i>Transportation equipment</i> | 53 |
| 3.9.3 | <i>Office equipment and other investments</i> | 54 |
| 3.9.4 | <i>Summary of all investments and fixed assets</i> | 54 |
| 3.9.5 | <i>Other short and long term assets</i> | 55 |
| 3.10 | ENTER ASSUMPTIONS ON FUNDING | 57 |
| 3.10.1 | <i>Automatic Credit Line</i> | 57 |
| 3.10.2 | <i>Planning donations (grants and subsidies)</i> | 58 |
| 3.10.3 | <i>Planning for new equity sources</i> | 58 |
| 3.10.4 | <i>Planning management of your debt financing</i> | 59 |
| 3.10.5 | <i>Planning quasi-capital loans (subordinated debt)</i> | 60 |
| 3.10.6 | <i>Calculating the cost of debt financing</i> | 60 |
| 3.10.7 | <i>Other liabilities and cash and short-term investment allocation</i> | 61 |
| 4 | CHECK AND ADAPT ASSUMPTIONS TO GET A BALANCED AND FEASIBLE RESULT | 63 |
| 4.1 | CONSULTING AND CHECKING RESULTS..... | 63 |
| 4.1.1 | <i>Proj MFI Factsheet</i> | 63 |
| 4.1.2 | <i>Performance Indicators sheet</i> | 64 |
| 4.1.3 | <i>Graphs sheet</i> | 64 |
| 4.1.4 | <i>Input sheet</i> | 65 |
| 4.2 | CHANGING ASSUMPTIONS | 66 |
| 5 | DEVELOP SCENARIOS | 67 |
| 5.1 | STORE A SCENARIO..... | 67 |
| 5.2 | RELOAD A SCENARIO | 68 |
| 6 | PRINTING RESULTS..... | 69 |
| 7 | FAQ - FREQUENTLY ASKED QUESTIONS | 70 |
| | ITEM REFERENCE..... | 70 |
| | I HAVE MACROS ENABLED, BUT I STILL GET THE “ENABLE MACROS” MESSAGE | 70 |
| | WHERE ARE PRINCIPAL DUE AND INTEREST RECEIVED CALCULATED? SOMETIMES WHEN I CHANGE SOME VALUE, A PROGRESS WINDOW SHOWS FOR 1 OR 2 SECONDS. WHY IS THAT?..... | 70 |
| | HOW DO I INTRODUCE A NEW LOAN PRODUCT IN THE FIVE-YEAR PLAN? | 70 |

Executive Summary

Microvision is an easy to use tool for making financial and social performance projections over a 3 to 5-year period. By uploading an MFI's historical data from the MFI Factsheet or by filling them in manually and introducing simple assumptions, MFIs can obtain projections of both their financial statements and their social and financial indicators. The tool presents these results in the same graphical format as the MFI Factsheet, and illustrates the trends over several years.

Microvision requires a limited number of assumptions and because of its small size, it can easily be exchanged through emails.

To proceed with Microvision, it is recommended to consider the following steps:

- STEP 1: Think about your main strategic orientations beforehand, during business plan preparation. Remember that developing your financial projections with Microvision is the last step of your business planning process
- STEP 2: Collect and enter historical data. This can be done by either importing it from the MFI Factsheet or by manually inputting it. You can set up loan products (max 10) and saving products (max 5)
- STEP 3: Enter specific strategic assumptions
- STEP 4: Adapt the assumptions in order to get a balanced and feasible result
- STEP 5: Develop scenarios (minimum, maximum and baseline).

Each step is discussed in detail further on in this manual.

All Microvision copyrights are exclusively owned by ADA & BRS. The tool can be downloaded for free from www.microfact.org and can be used by MFIs to make their own strategic financial and social projections.



1 Introduction

1.1 Microvision – A simple tool for financial and social projections

Microvision is an easy to use tool that can generate financial and social performance projections over a 5-year period. It is designed for all types of microfinance institutions and their partners, and helps them to analyse and adjust their longer-term financial plans as a way to ensure sustainable growth. The tool not only provides them with a framework and general background information for strategic and operational planning, but it further simulates the impact that different parameters may have on the MFI's overall activity. The projections generated through Microvision are an essential and valuable input for every MFI's business plan.

1.2 Key features of Microvision:

- **Only one file:** no installation, ready-to-use, small (\pm 3MB)
- Option for automated **import of MFI Factsheet** data: less workload
- **Possibility of editing and updating the MFI Factsheet data directly in the Microvision:** in case some data are not complete
- **Automatic Simplified Projection** based on the global portfolio and continuing historical trends: to generate estimated results for the next 5 years
- Up to **10 types of loan products** can be defined
- Up to **5 types of saving products** can be defined, of which 1 is reserved for mandatory savings
- Defining parameters for income, staff, other costs, investments and funding and optionally for seasonality
- Data can be defined in up to **3 projection scenarios:** play with figures to forecast an optimistic, normal and pessimistic future
- **Very comprehensive graphs** show the evolution of key performance indicators in the three scenarios: comparable to the financial and social performance indicators of the MFI Factsheet
- Recall the data of a scenario for the **final output report**
- **Customise your level of detail:** show all details or hide them for a lighter overview
- Generate **5 printable projection reports** in local currency, EUR or USD which include the MFI Factsheet, input data, performance indicators, cash flow and graphs.

1.3 Why a financial and social projection tool?

Today, every professionally run MFI has a solid business plan that highlights strategic choices, values, outreach targets, segmentation of clientele and the planning of resources.

Such a business plan is accompanied by financial projections. The financial statements are projected into the future to foresee the financial growth path, with evidence on:

- Intended growth of the service delivery – credit portfolio growth

- Introduction of new financial products (credits, savings, insurance, etc.)
- The capital to be mobilised
- Planning of the staff expansion and investments needed
- Income and costs structure forecasts
- Balanced growth path that keeps the organisation profitable and solvent
- Implementation of the organisation's social mission.

1.4 Why keep the financial and social projection tool simple?

Generating financial projections is never a simple exercise. Many aspects have to be taken into account in order to predict the evolution of the financial statements over a given time. In addition, developing a business plan is time-consuming for the MFI teams (board of directors, management, and other staff members usually involved at various stages). It is therefore necessary to approach the projection exercise with a tool that is easy to use, with a logic that can be easily understood by everyone and with a limited input of historical data and assumptions. It should increase the efficiency of the teams while allowing for accurate results that can be more easily interpreted and modified at any time, according to changes in the strategy or according to the achievements of the MFI over the years.

In addition, Microvision makes it possible to make the projection of an MFI's social performance. When forecasting financial statements and social performance, it is not necessary to project all the elements in detail. For most institutions and their partners, the general trends of the main performance indicators are sufficient to communicate the overall strategy, with the main strategic orientations and their impact on the institution's performance (portfolio, changes in the composition of equity capital, profitability, productivity...). Getting lost in details could blur the key message.

Having a tool that is quick and easy to use means that it is more likely to be regularly consulted to revise scenarios when needed and the simple and light projection file can be easily shared as an email attachment.

But using a simple format also has its own limitations:

- The portfolio growth can be **developed per product or per branch**, but cannot be consolidated for both: per product **and** per branch
- Microvision can only generate **annual projections** for 5 years or less. Full monthly projections are not possible
- The model allows for **10 credit products, 5 savings products, 10 staff categories, 17 categories of operational expenses and 20 separate groups of investors.**

If the users are interested in obtaining monthly or more detailed projections, then more advanced tools must be used.

1.5 INSTALLATION

Required system

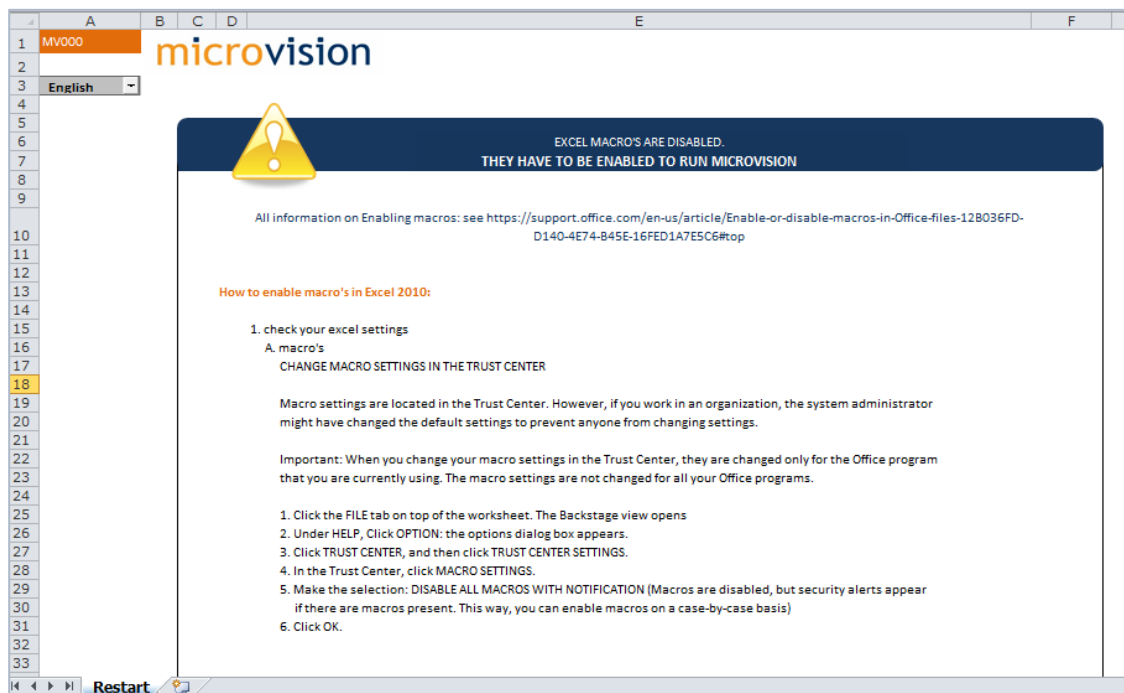
- Windows 7 or higher (Win 8, Win 10, ...)
- Microsoft Excel 2013 or higher
- 4 Mb of available disk space.

Using the software for the first time

1. Download Microvision from www.microfact.org
2. Launch Microvision by double clicking the “Microvision” file
3. Enable macros. Microvision uses macros. Therefore, the macro setting in Excel has to be enabled.

When opening the Microvision file for the first time, the following situations are possible:

- You get a warning to enable macros and to allow editing content. **Both have to be enabled**
- You get a **Restart screen with the explanation on how to enable macros**. This means that your Excel settings are set to “always disable macros”. After enabling them, Microvision excel file has to be saved, closed and reopened again.*



*It may be necessary to contact your system Administrator to adapt the Excel settings on your computer.

1.6 HANDBOOK

Practical info about this manual and Microvision

1. This manual provides step-by-step instructions on how to generate projections. So if you read it from the beginning to the end, you should end up with a marvellous projection!
2. [Hyperlinks](#) take you to additional information. But they will not bring you back to your original page (this is not a website), so try to remember where you were. To activate the hyperlink: click on it
3. The following tips & tricks boxes appear throughout the manual:

- ⚠ **Attention:** this indicates that there is something to be aware of!
- 💡 **Tips:** on how to make life - and the use of Microvision - even easier
- 📄 **Info:** provides some extra background information.

4. Layout

| MV02 microvision HISTORICAL INFORMATION ON LOAN PRODUCTS | | PLEASE FILL IN ALL YELLOW-COLOURED CELLS | | | | |
|---|--|--|-------------------|-------------------|-----------------|-------------------|
| NAME OF INSTITUTION | | SABORA | | | | |
| K01 | Hide details | Number of loan products | | 3 | | |
| LOAN PRODUCT NUMBER | 1 | 2 | 3 | TOTAL | TOTAL - CONTROL | |
| NAME OF LOAN PRODUCT | Business | School | Housing | | Errors in 1 row | |
| K11 | Interest rate (annual) 2018 | 20.00% | 18.00% | 18.00% | | |
| K12 | Interest calculation method | declining balance | declining balance | declining balance | | |
| K13 | Annual Percentage Rate (APR) | 35.3% | 21.5% | 25.5% | | |
| | From Interest | 20.0% | 18.0% | 18.0% | | |
| | From Up-front Fee | 3.7% | 3.5% | 6.4% | | |
| | From On-going Fee | 0.0% | 0.0% | 1.1% | | |
| | From Loan Insurance Fee | 0.0% | 0.0% | 0.0% | | |
| | From Mandatory Deposits | 11.5% | 0.0% | 0.0% | | |
| PRODUCT ACTIVITY, 2018 | | | | | | |
| K14 | Gross loan portfolio 2018 | 6,000,000 | 750,000 | | 6,750,000 | |
| K15 | Number of borrowers at the end of 2018 | 9,000 | 1,800 | | 10,800 | ↔ 10,800 OK |
| K16 | Average outstanding loan size | 667 | 417 | 0 | 625 | ↔ 625 |
| K17 | Number of years this loan product active | 6 | 2 | 0 | | |
| K18 | Borrowers annualized retention rate | 70% | 50% | 0% | 67% | ↔ 109% |
| K19 | Number borrowers per loan officer at end of 2018 | 275 | 500 | 300 | 297 | ↔ 300 OK |
| K20 | Mandatory deposit balance | 2,504,901 | | | 2,504,901 | ↔ 1,304,500 Error |
| | | | | | 0 | |
| | Grace period (months) / Loan term (months) | 0.00 | 0.00 | 0.00 | | |
| | Average disbursed loan size | 1,012.22 | 600.00 | 2,000.00 | | |

💡 Tips

For more information:

[Item references](#) are shown in column A of all input sheets. If you **double-click** on one of them, a pop-up window with additional explanations and/or definitions is shown.


Layout:

- . **Yellow coloured cells** are input cells. These have to be completed in order to generate a projection
- . **Orange coloured cells** are input cells that contain pre-set formulas, but can be changed if needed. If replaced with a value, they change to yellow
- . All other cells are protected and cannot be changed
- . **Light green bands** indicate detail lines that are hidden or shown by using the "Show/Hide details" button
- . **Light blue text** indicates calculation areas that are only shown when details are shown.

Checks:

Everywhere in Microvision ↔ **controls/checks** are built-in. The purpose is to highlight missing or incorrect data so you can react appropriately. Essential incorrect values become **red errors**.

5. Overview error checking

| MV12 microvision STRATEGY AND SCENARIO DEVELOPMENT | | | | | | | | |
|---|------|---|-----------|-----------|-----------|-----------|--------------|-----|
| NAME OF INSTITUTION | | SABORA | | | | REPORT IN | 1 MAD | |
| | | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | Pri |
| Liquidity (red = funding gap) | | 846,058 | 84,359 | 185,329 | 198,655 | 207,100 | 89,812 | |
| Summary error checking | | | | | | | | |
|  | | Summary error checking: 4 Errors | | | | | | |
| Sheet names | Item | | | | | | OK/Err | |
| MFI Factsheet | | Balance sheet balance | | | | | OK | |
| MFI Factsheet | | Accrual of interest | | | | | OK | |
| MFI Factsheet | | Gross Loan Portfolio (principal outstanding) | | | | | OK | |
| MFI Factsheet | | Current year profit/loss | | | | | OK | |
| MFI Factsheet | | Reserves/retained earnings/accumulated losses | | | | | OK | |
| MFI Factsheet | | Loan Loss Reserve consistency | | | | | OK | |
| Loan Products | K15 | Number of borrowers at the end of 2018 | | | | | OK | |
| Loan Products | K19 | Number borrowers per loan officer at end of 2018 | | | | | OK | |
| Loan Products | K20 | Mandatory deposit balance | | | | | Error | |
| Loan Products | K24 | Check if the targets for all sectors together is 100% | | | | | OK | |
| Loan Portfolio | P24 | Loan loss reserve ratio | | | | | OK | |
| Loan Portfolio | P27 | Loan loss reserves for this loan product (on balance sheet) | | | | | OK | |
| Savings | E02 | Number of depositors | | | | | OK | |
| Savings | E05 | PROJECTION OF DEPOSITS | | | | | Error | |
| Savings | E10 | Total interest paid on deposits | | | | | Error | |
| Seasonality | T01 | Loan product 1: Business | | | | | OK | |
| Seasonality | T01 | Loan product 2: School | | | | | OK | |
| Seasonality | T01 | Loan product 3: Housing | | | | | OK | |
| Seasonality | T03 | <Type name of product 1 | | | | | Error | |
| Seasonality | T03 | <Type name of product 2 | | | | | OK | |
| Staff | M09 | Annual Salary Cost | | | | | OK | |
| Other Costs | Q07 | Total administrative expenses | | | | | OK | |
| Funding | U12 | Loan balance | | | | | OK | |

Tip

Error checking at a glance:

On the Strategy sheet, as from the line 82, an overview of checked values is displayed. **Errors** are red and **correct values** are grey on a blue background. In the heading, the number of errors and warnings is displayed.

1.7 Quick view: How to generate projections with Microvision

Developing financial and social projections can be summarised in the 5 following steps:

- STEP 1: Think about your main strategic orientations beforehand
- STEP 2: Collect and enter historical data by importing it from the MFI Factsheet or by manually entering it. Add loan products (max 10) and saving products (max 5) and/or further segment staffing data, operational costs and investors
- STEP 3: Enter specific strategic assumptions
- STEP 4: Adapt the assumptions in order to get a balanced and feasible result
- STEP 5: Develop scenarios (minimum, maximum and baseline).

STEP 1: Think about your main strategic orientation

Ideally, this should be done prior to working with Microvision.

The strategic orientations (level of growth, development of new products, human resources management) are defined during the business plan development exercise. The business plan consists of various elements, such as the definition of the MFI's mission, vision, market research and client segmentation, institutional analysis (Strengths, Weaknesses, Threats, Opportunities = SWOT) including elements of competition, regulation, etc.... Thanks to this in-deep analysis, a business plan will consist of strategic planning and operational planning.

Financial and social projections are used only in the final stage of the business planning process to simulate the major strategic orientations and analyse their impact on institution's performance and social indicators. A results of the projections may not be satisfying, because they are not realistic (for example, the initially defined business plan requires a high level of funding that the MFI will not be able to raise). Thus, you may have to revise your strategic directions upwards/downwards in order to build reasonable and justifiable projections. **This means that you will be going through an iterative process.**

STEP 2: Collect and enter historical data

To generate a projection for the first time, you must first enter your historical data. The easiest way is to import your data from the MFI Factsheet file into Microvision. If you do not have a MFI Factsheet file, you can manually enter the figures into Sheet: MFI Factsheet. For new institutions, only the opening balance sheet will be needed, as no historical data is available.

The figures in the MFI Factsheet feed the relevant historical information and starting balances on the Microvision sheets. This data will allow you to check the consistency with your projection. This process will be explained further in STEP 3.

STEP 3: Enter the intended strategic assumptions

After filling in the historical data, you must enter the assumptions in the **data input sheets** of Microvision:

1. Enter extra context information on the currency rates and inflation:
 - Complete data in the **Identification Sheet**
2. Project a growth of your loan and savings products (including its seasonal spread over the year) and the income and charges they can generate:
 - Set up your loan products in **Loan Products** sheet by entering all their characteristics and basic historical data
 - Enter a growth and portfolio quality assumptions in the **Loan Portfolio** sheet
 - Enter the assumptions in the **Income** sheet, related to the pricing of your loan products
 - Define Saving Products in the **Savings** sheet
 - You have the option to set your portfolio according to seasonality in the **Seasonality** sheet if your products have significant seasonality
3. Project the staffing, operational costs and investments needed to run the intended size of the institution:
 - Enter data in the **Staff** sheet
 - Enter data in the **Other Costs** sheet
 - Enter data in the **Fixed Investments** sheet
4. Plan how to obtain your funding (mobilise the needed capital) to cover the portfolio growth, investments and working costs:
 - Enter data in the **Funding** sheet.

STEP 4: Adapt the assumptions in order to get a balanced and feasible result

When needed, parameters of previous steps can be adjusted in order to optimise the projections.

The final projection results are available in the output sheets. Check those sheets to see if they provide satisfying results:

- Projections of financial statements and some additional information in the **Proj MFI Factsheet** sheet
- An overview of all assumptions in the **Input** sheet
- Projected and historical **Performance Indicators**
- **Proj CashFlow** distribution during projected years
- **Graphs** sheet with a graphical presentation of the most important social and financial ratios.

When the results are not satisfying, assumptions can be changed by returning to the input sheets and changing some figures. Microvision also offers another means to experiment with variables on the **Strategy** sheet. This sheet presents some of the key input variables from throughout the other sheets. You can change those variables directly on the **Strategy** sheet and view the impact of those changes on the performance indicators.

STEP 5: Develop scenarios

Once you have generated your projections, they can be saved as a scenario. You can save up to three scenarios. Try to play with your projections and save them as a scenario! Each of your saved scenarios can be available at any time for review and sharing.

And now... let's start!

2 STEP 2: Collect and enter historical data

The preferable way of inserting your institution's historical financial and social data into Microvision is to upload them automatically from the MFI Factsheet file.

Alternatively, the historical data can also be filled in manually in the sheet: **MFI Factsheet**.

2.1 Filling in the Identification Sheet

When you open Microvision for the first time and [macros have been enabled](#), you will see the Identification Sheet.

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| MONETARY CONTEXT | | | | | | | | | |
| Exchange rate (at period end) BOB/USD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Exchange rate (at period end) BOB/EUR | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Exchange rate (at period end) USD/EUR | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| GNI/capita (local currency) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Annual inflation rate (%) BOB | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Inflation Index BOB | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

You should first become familiar with this sheet and fill in the necessary information before proceeding. First, note that there is a dropdown in the top-left that allows you to change the language of the software. You can change the language back and forth without having to re-enter any data.

Line G01- First year of the projection:

The first year for the projection period. This is normally the upcoming year from right now.

Line G02- Name of institution:

This will appear in the header section of each worksheet.

Line G03- Currency of the report:

Select the currency used in the MFI Factsheet, as these currencies must be identical in order to be able to import your data.

Line G04- Number of years for projection:

You can use Microvision to make projections for 3, 4, or 5 years. It takes very little extra time to make a projection for the full 5 years. You can also start with a 5-year projection and then later hide years 4 and/or 5.

Line G05- Data import from the MFI Factsheet:

This line shows the name of the MFI Factsheet file that was imported (see G06). You do have the option to import a new file to replace a previously imported MFI Factsheet.

Line G06- Import MFI Factsheet:

Click this button to begin the process to import an MFI Factsheet. Be sure to carefully read the screen that appears to determine if you have any additional work to do before you import. If so, click CANCEL. This process will be described in the next section of this manual.

Line G07- Import data from earlier version of Microvision:

You can import data from an earlier version of Microvision, if it is in the v16 series. v15 files will NOT import. Importing into a new version is important when new features or bug fixes are made in the Microvision software.

Click the import button and you will be guided through the process. Be aware that the imported data will REPLACE any data in this Microvision file, so be sure to work with a copy that you do not need.

Also, be aware that the import process is a PARTIAL import. The software will only import numbers that you have typed into the input cells. If you have created any formulas in the input cells, those will NOT be imported. You will need to recreate those manually after the import process is complete. Also note that currently the Scenarios are not imported. Only current data is imported into this new version.

Line G08- MONETARY CONTEXT:

This section contains a variety of monetary indicators that will be used for conversion processes throughout Microvision. Some historical data will be transferred from the MFI Factsheet, while other data you will need to provide. For future values, you can decide to keep the same rate as for the previous year or to follow the evolution of the last few years.

Line G09- Exchange rate (at period end):

The official value of a nation's monetary unit at a given date or over a given period of time, as expressed in units of local currency per reference currency (e.g. EUR or USD) and as determined by international market forces or official fiat.

For current and historical exchange rates, visit website of OANDA: www.oanda.com.

For future values, you can decide to keep the same rate as for the previous year or to follow the evolution of the last few years.

Line G10- GNI/capita (local currency):

Please fill in the numbers from the following website: <http://data.worldbank.org/indicator/NY.GNP.PCAP.CD>

For future values, you can decide to keep the same rate as for the previous year or to follow the evolution of the last few years.

Line G11- Annual inflation rate (%):

The current rate at which a basket of goods and services has increased for a year. The two current leading indicators that measure the current inflation rate are the Consumer Price Index (CPI) and the Producer Price Index (PPI). In this specific case measured on a yearly basis. Furthermore, here it is the estimated rate at which the local cost of goods and services increases.

Although many measurements exist for inflation, in this framework the inflation rate should be taken from the International Monetary Fund (IMF) report: <http://data.imf.org/>
For future values, you can decide to keep the same rate as for the previous year or to follow the evolution of the last few years.

Line G12- Load formulas for a simplified projection:

Click this button to load formulas in Microvision that will create a very fast, simplified projection. Details are described on the screen after clicking the button. If you have already begun work in Microvision, this process MAY overwrite some of the formulas you have entered, so be careful.

Generally, you should first import an MFI Factsheet and then load the simplified projection. Once the simplified formulas are entered, you can explore and expand on the projections. You also have the option to again click this button to erase the simplified formulas.

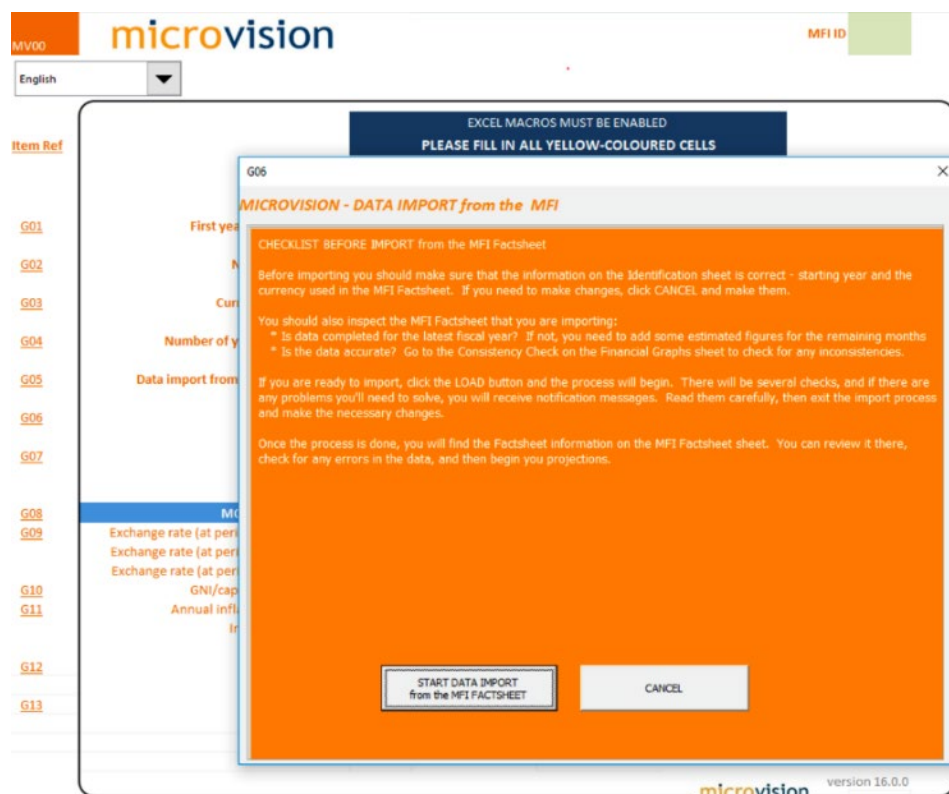
 **Tip**

If your MFI Factsheet does not contain good context data, they can be found at:

- For exchange rates: www.oanda.com/currency/converter
- For GNI per capita: <http://data.worldbank.org/indicator/NY.GNP.PCAP.CD>
- For inflation rates: <http://data.imf.org>

2.2 Importing an MFI Factsheet

By clicking this button, you will see the orange screen that describes and manages the import process. Read and review the information on that screen carefully before proceeding.



Attention

Microvision builds projections starting from the reference data on historical years. Quality and consistency of historical data is of utmost importance and it is important to start with data of complete years. You will likely be making forward projections when the current year is not yet complete. You will need to develop some estimated end-of-year figures and input those into the MFI Factsheet file before you import your data.

Attention

The currency of Microvision has to be the same as the currency of the MFI Factsheet.

2.2.1 No historical data available

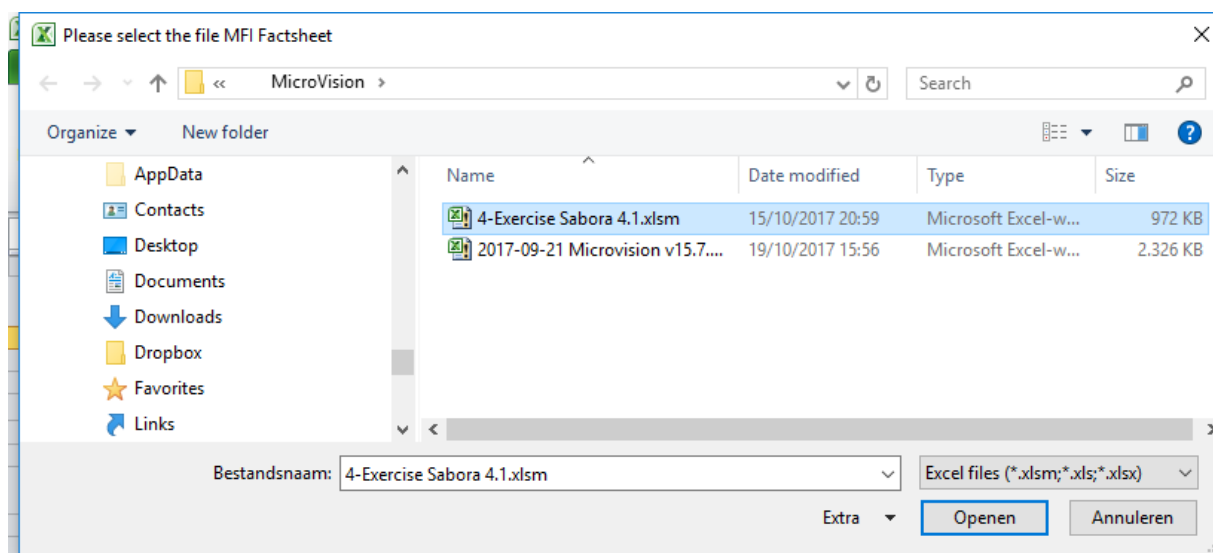
If you do not have historical data in an MFI Factsheet format, you are a new institution or you just want to have a look at the Microvision tool before starting, do not use: Import MFI Factsheet button. You can still use the financial projection tool without historical data, although remember, that historical data tend to give the most realistic indications to formulate the strategic hypotheses. For new institutions, only the opening balance sheet will be needed.

2.2.2 Button “Import MFI Factsheet”

By clicking on this button, you will start the import, as described in the following text.

2.2.3 Select MFI Factsheet

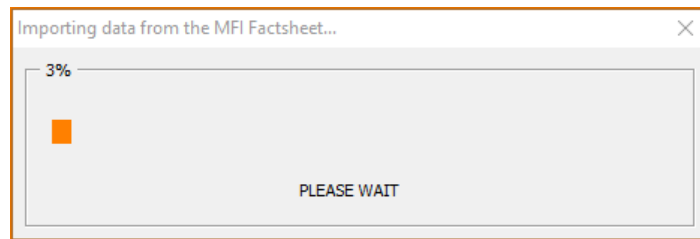
A browser window appears. You can select your MFI Factsheet here.



At this stage, you can still stop the import by clicking on the “Cancel” button in the browser window. You will return to the pop-up window.

2.2.4 Importing data from the MFI Factsheet

A progress window is shown.



The import can take a while. Be patient until a message appears informing you that the upload was successful.

Clicking “OK” closes the message and pop-up window and brings you to the **Identification Sheet**.

In the **MFI Factsheet** sheet, you can check that all data have been imported.

2.3 In the absence of an MFI Factsheet

In case you do not have your data already inserted in an MFI Factsheet format, you can enter the historical data in Microvision in the **Identification Sheet** and the **MFI Factsheet** Sheet manually. Greenfield institutions need to indicate only their start position, such as the start of the balance sheet.

2.4 Importing from an earlier version of Microvision

New Microvision versions will be released, adding new features and correcting errors discovered in earlier versions. You may have all of your data entered in an earlier version when a new version is released. Do you have to retype all of your work? No. Microvision includes an import feature that will bring in most, and sometimes all, of your previous work. The process takes less than a minute to transfer data, but then you do need to go through each sheet and inspect and complete any missing information.

You can import data from an earlier version of Microvision you have been working with, if it is in the v16 series. Microvision v15 files will NOT import into v16.

To begin the process, open up the new Microvision file that has never been used and in which you have not entered any data. The imported data will REPLACE any data in this Microvision file. Click the “Import” button on the Identification sheet, and you will be guided through the process.

Be aware that the import process is a PARTIAL import. The software will only import numbers that you have typed into the input cells. If you have created any formulas in the input cells, those will NOT be imported. All pre-existing formulas that were already in Microvision will be maintained, but any new formulas that you have created will not be transferred. You will need to recreate those manually after the import process is complete. Also note that, unfortunately, the Scenarios are not currently imported, although this may be added in a future version. Only current data is imported into this new version of Microvision.

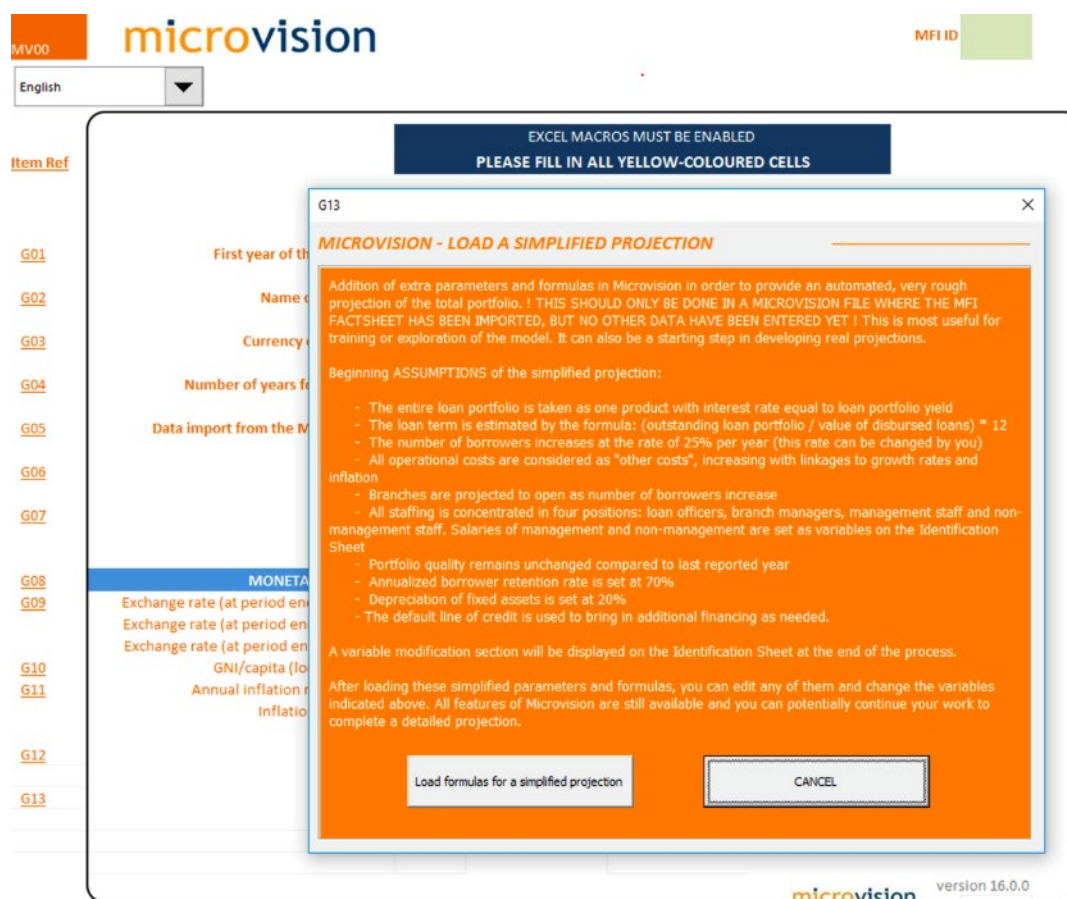
2.5 Simplified projection

If you want to use the tool to its full capacity and generate a complete projection using your own parameters (and we recommend it), you can skip this section and continue [here](#).

However, if you are short of time or you want to have a rough idea of the MFI’s future financial and social performance, it is possible to generate a simplified projection. However, this is only possible after having imported data from the MFI Factsheet.

2.5.1 Include a simplified projection

To start the simplified projection, click on the button, and a pop-up window appears.



The pop-up window shows the hypotheses and assumptions used in the simplified projection. You can also read them in the following info box:

Info

The assumptions used for the simplified projection:

- The entire credit portfolio is taken as one product with interest rate equal to loan portfolio yield
- The loan term is estimated by the formula: $(\text{outstanding loan portfolio} / \text{value of disbursed loans}) * 12$
- The number of borrowers increases at the rate of 25% per year (this rate can be changed by you)
- All operational costs are considered as "other costs", increasing with linkages to growth rates and inflation
- Branches are projected to open as borrowers increase using the current average borrowers number per branch
- All staffing is concentrated in four positions: loan officers, branch managers, management staff and non-management staff. Salaries of management and non-management are set as variables on the Identification sheet
- Portfolio quality remains unchanged compared to last reported year
- Client retention rate is set at 70%
- Depreciation of fixed assets is set at 20%
- The default line of credit is used to bring in additional financing as needed.

After loading these simplified formulas, you can edit any of those formulas and change the variables indicated above. All features of Microvision are still available and you can potentially continue your work to complete a detailed projection.

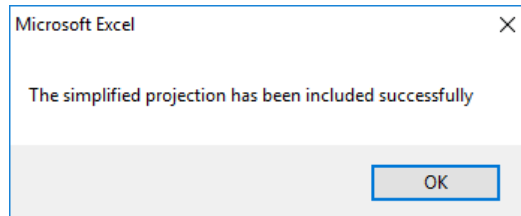
If you understand these assumptions and you agree with them, you can continue by clicking the button "Load formulas for a simplified projection".

Attention

Making a simplified projection only gives a rough estimation and can be misleading. It should only be done if you have a thorough knowledge of financial reporting and projections.

You have to be able to understand the possible effects of the hypotheses made and recognise, interpret and modify strange results which might appear.

In general, the process is quick and at the end a message that the projection has been successfully included will appear. Click “OK” to return to the Identification Sheet.



You will notice that the text on the button on the Identification Sheet has now changed into “Remove the simplified projection”. Don’t worry, it is still possible to return to the original state.

You will also notice a new section appearing at the bottom of the Identification Sheet, listing a few variables that you can adjust. These will then change the formulas in several areas of the model.

G12

G13

Variables to adjust the simplified projection

| | | | |
|--------------------------------------|-----|---|-----|
| Annual growth in number of borrowers | 25% | Difference (in %) "management staff" vs. "non-executive" salaries | 40% |
| | | Average calculated salary of management staff | 0 |
| | | Average calculated salary of non-management staff | 0 |

microvision version 16.0.5

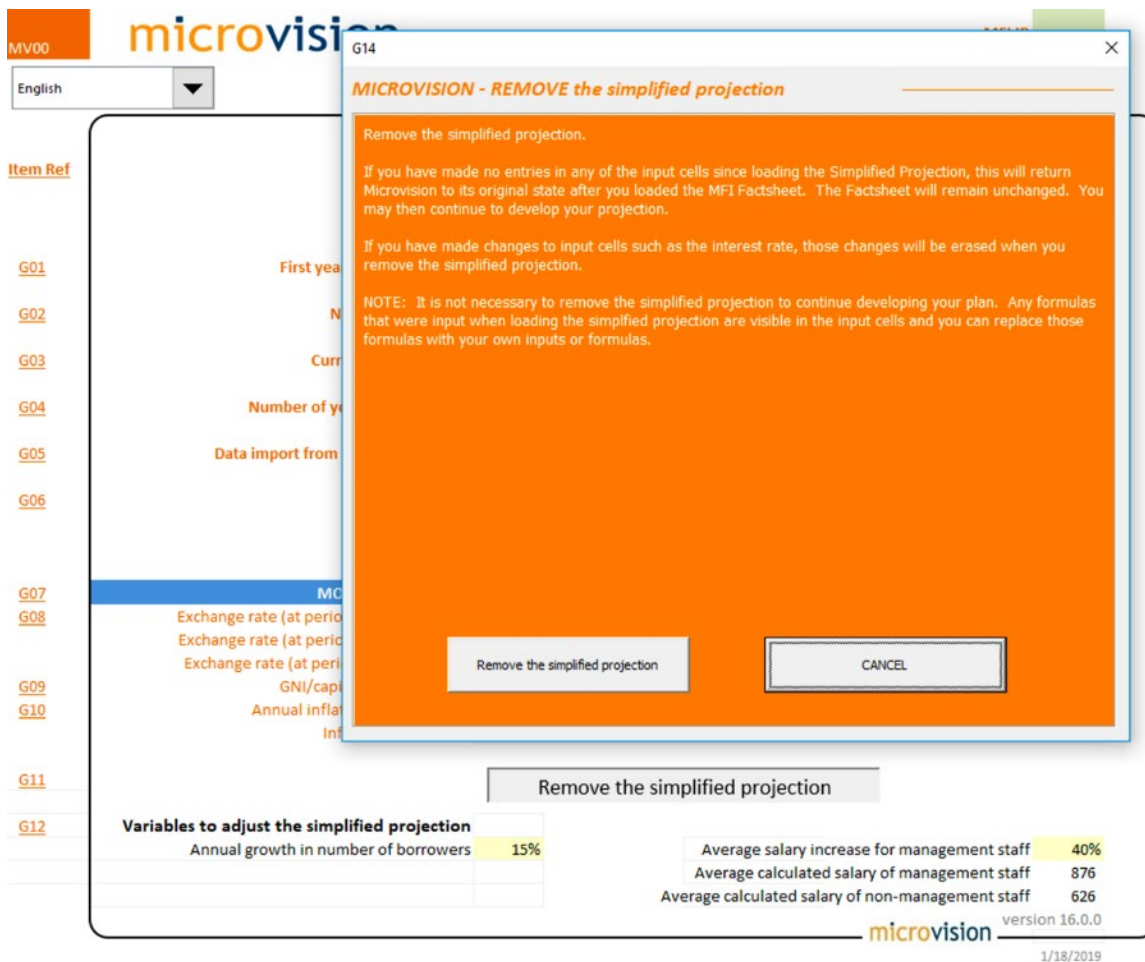
2.5.2 Remove the simplified projection

To return to Microvision without the simplified projection, e.g. if you just wanted to have a general idea and then decide to input all product and other data yourself, you can remove the simplified projection.

Attention

Removing the simplified projection can cause changes to the data you entered (other than on MFI Factsheet) or changed manually in the meantime.

By double-clicking on the button on the Identification Sheet, a pop-up window is shown, with a warning that data entered in the meantime can change when removing the simplified projection.



By clicking on the button “Remove the simplified projection”, the projection will be removed. If successful, a message is shown. Click “OK” to return to the Identification Sheet.

You will notice that the text in the button is again “Load formulas for a simplified projection”.

3 STEP 3: Enter the intended strategic assumptions

3.1 Loan Products sheet

The sheet “Loan Products” contains all **basic information** about your loan products. You can define up to ten different products for current and projected use. For example, you may currently have 5 products and plan to introduce 3 new products in the next 5 years. If you have more than 10 products, here are some options:

- you can either group them by similar characteristics (amount, term, price) or
- you can project those products forming the major portion of the loan portfolio and cluster the smallest products (e.g., staff loans) into a single “product”.

If you have only a few products, you might choose to use additional product columns to project each product by region or branch to get more specific information.

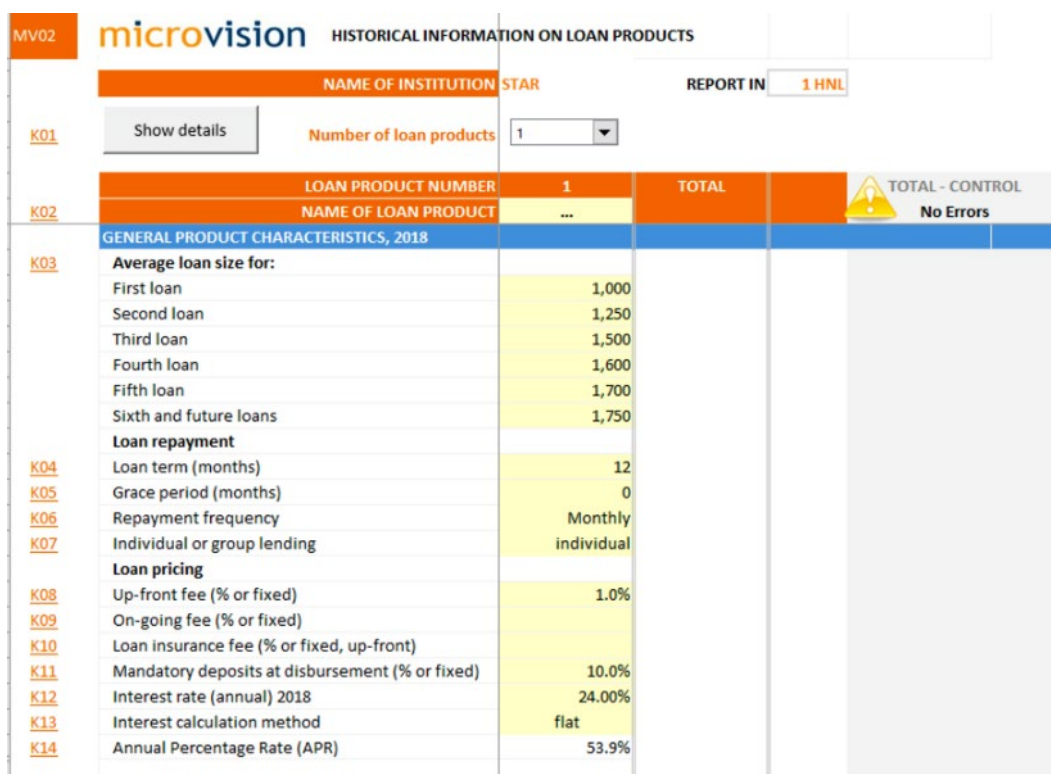
 **Info**

How Microvision distinguishes loan products:

- Microvision will perform detailed monthly calculations of the number of borrowers, disbursements and repayments, and the income generated for each loan product. These calculations are done on an advanced sheet called Loan Detail.
- These calculations follow borrowers through a sequence of loan cycles. Each cycle has the option of the client receiving a different loan amount in each loan cycle, as typically the loan amounts will increase over time. This approach is much more accurate than just using a single average loan size for all loans for the product.
- Microvision does assume that the average loan term for a product is fairly consistent for all borrowers and for all loan cycles. A moderate variation, such as loans falling in the range of 9-12 months, will not significantly affect the projections. The broader the range, the more impact on the projections. Thus, if a product has a broader range, you may consider splitting it into two products in Microvision – Product A (short) and Product B (long).

3.1.1 Layout of the Loan Products sheet:

Here are all the lines you will use on the Loan Products sheet. Every product has its own column, with the TOTAL column and the error check column appearing to the far-right. Line numbers appear in the column A and are used for the explanations below. This same text is available as pop-up help when you double-click the line number in the software.



| LINE | DESCRIPTION | VALUE | TOTAL | TOTAL - CONTROL |
|------|---|------------|-------|-----------------|
| MV02 | NAME OF INSTITUTION | STAR | | |
| | REPORT IN | 1 HNL | | |
| K01 | Number of loan products | 1 | | |
| K02 | LOAN PRODUCT NUMBER | 1 | TOTAL | TOTAL - CONTROL |
| | NAME OF LOAN PRODUCT | ... | | No Errors |
| | GENERAL PRODUCT CHARACTERISTICS, 2018 | | | |
| K03 | Average loan size for: | | | |
| | First loan | 1,000 | | |
| | Second loan | 1,250 | | |
| | Third loan | 1,500 | | |
| | Fourth loan | 1,600 | | |
| | Fifth loan | 1,700 | | |
| | Sixth and future loans | 1,750 | | |
| | Loan repayment | | | |
| K04 | Loan term (months) | 12 | | |
| K05 | Grace period (months) | 0 | | |
| K06 | Repayment frequency | Monthly | | |
| K07 | Individual or group lending | individual | | |
| | Loan pricing | | | |
| K08 | Up-front fee (% or fixed) | 1.0% | | |
| K09 | On-going fee (% or fixed) | | | |
| K10 | Loan insurance fee (% or fixed, up-front) | | | |
| K11 | Mandatory deposits at disbursement (% or fixed) | 10.0% | | |
| K12 | Interest rate (annual) 2018 | 24.00% | | |
| K13 | Interest calculation method | flat | | |
| K14 | Annual Percentage Rate (APR) | 53.9% | | |

Continue to fill in the characteristics per loan product (or other portfolio segment). At the top of each column you can name your loan segmentation (K02). A loan product is characterised by:

Line K01- Number of loan products

You can make projections for up to 10 different loan products. This choice will display the appropriate number of columns and rows on all the sheets in Microvision.

Line K02- Name of loan product:

You can type names for each product on this line. These names will appear throughout the other sheets in Microvision.

Line K03- Average loan size by cycle:

Many microfinance loan products have clients getting a sequence of loans, often with the loan amounts gradually increasing. You can indicate the progression of loan sizes here. You must enter loan amounts PER BORROWER. Thus, for a group loan product, you would need to divide the group loan amount by the number of members in that group. This allows Microvision to generate financial and statistical information per borrower. Note:

- If a loan product does have clients repeat but the amounts generally are the same, you can enter the same amount for each cycle
- If a loan product doesn't have clients repeat at all, you can enter 0 amounts for higher cycles and enter a retention rate of 0% further below on this worksheet
- If a product does repeat, but only a few times, e.g., 3 times, enter 0 for the higher cycles. You should then enter a relatively low retention rate further below so that very few clients pass the 3rd loan cycle. The annualized retention you enter will need to take into consideration the loan term. For example, if your product allows 3 loans of 12 months, a retention rate of 50% would work, but if the loan term is 6 months, you would need to use 25%

3.1.2 Loan Repayment

Line K04- Loan term (months):

Enter the average loan term period for each loan type in months (no decimals!) - this is the real average loan duration and thus not the maximal allowed duration as usually written in advertisements for the product.

If a product has a wide range of loan terms, e.g., loans between 6 and 18 months, your projections may be more accurate if you split this into two products - loans from 6-12 months (entering 9 as the average) and loans 13-18 months (entering 15 as the average).

Line K05- Grace period (months):

A grace period of 1 month means that repayment starts on 01-March when the loan is disbursed on 01-January. Only grace periods in full months can be entered.

If the credit will be reimbursed in one installment at the end of the loan term, set the grace period as the "loan term minus 1", e.g., enter 5 for a 6-month end-of-term loan.

Line K06- Repayment frequency:

Choose the most common frequency of repayment for the loan product. The options are weekly, every two weeks, monthly, and quarterly. Note that for end-term payment loans, you should pick monthly in this option and a grace period of "loan term - 1".

Your choice will determine the repayment amounts on the Loan Detail sheet. Shorter loan terms result in faster repayment, meaning lower outstanding loan balance and lower interest income (if charging interest on declining balance).

With declining balance interest, the APR is independent of loan repayment frequency, but with flat interest you will find the APR to increase as the repayment frequency shortens.

Line K07- Individual or group lending:

Indicate the lending methodology for each product. This is used only to generate statistics. Note:

- Figures you enter for loan amount, case load, and number of loans managed must all be entered as "per borrower" rather than "per group"
- An assumption is that all loans for this product are a single methodology; if not, you can split the product into two methodology-specific products.

3.1.3 Loan Pricing

These lines allow a significant amount of flexibility in describing the pricing of each loan product. Interest can be charged as either declining balance or "flat". There are a variety of fees paid up-front (when the loan is disbursed) or on-going (with each loan payment). Fees can be entered as percentages or fixed amounts. Figures entered as less than 1.00 will be interpreted as percentages, whereas figures greater than 1.00 will be interpreted as fixed amounts. For example, 20.00 will be a fixed fee of 20, but 0.20 will be 20%.

As elsewhere on this sheet, all the figures you type for pricing need to be the prices charged in Year 0. You will be able to change any of the pricing for each product on the INCOME sheet.

Line K08- Up-front Fee (% or fixed):

All administrative or processing fees (account management, commission) paid prior to or at loan disbursement.

Line K09- On-going Fee (% or fixed):

All administrative or processing fees (account management, commission) paid throughout the loan with each loan payment. All administrative or processing fees (account management, commission) paid throughout the loan with each loan payment.

These can be calculated either as a % of the amount paid each month (enter as a number < 1.00, e.g., 0.02) or as a fixed amount paid per month (enter as a figure > 1.00).

For % fees, the fee is calculated as the % of the repayment principal made. Therefore, the amounts paid are not dependent on repayment frequency. You can enter the % and it will be calculated on the principal repayments each period.

For fixed fees per payment, the amount will need to be converted to a monthly amount. To do the conversion:

- * If a weekly fixed fee, multiply the fee by 4
- * If a biweekly fixed fee, multiply the fee by 2
- * If a monthly fee, enter the fee
- * If a quarterly fee... divide the fee by 3

Note that ongoing fixed fees ignore grace periods and will be calculated every month the loan is active, but % ongoing fees will respect grace periods.

Line K10- Loan Insurance Fee (% or fixed, up-front):

Enter here the fee charged for loan insurance. It is assumed to be paid up-front. Microvision does not have an option for on-going insurance fees. If the product has an on-going insurance fee, you may choose to enter the fee in the "on-going fee" section, but the income will be classified differently on your income statement.

Line K11- Mandatory Deposits at disbursement (% or fixed):

The amount of the loan that has to be maintained as a blocked deposit (loan collateral) during the full loan term. The amount is calculated on the amounts disbursed. Microvision does not support on-going mandatory deposits.

Fill here the starting requirement for mandatory deposits. The option to change it during the future years can be specified in the INCOME sheet.

Line K12- Interest rate (annual):

Enter the annual interest rate (e.g. 2% per month becomes 24% per year). You can change the interest rate in the later years in the INCOME-sheet.


Line K13- Interest calculation method:

Choose the method for 'interest due' calculation: flat or declining balance. This method cannot be changed during the projection period. If you plan to change the interest method, you can create a second product and transition clients from Product 1 to Product 2.

Line K14- Annual Percentage Rate (APR):

This formula of APR (Annual Percentage Rate) shows the true price of the loan, including also the effect of obligatory contributions to fees, insurance and obligatory savings accounts. The formula does not include eventual interest returns on the blocked deposits.


This calculation is an estimate for the "average loan cost" for this product. The true APR can vary significantly among loans within a single product.

 **Info**

Based on the pricing assumptions, the true price of the loan is calculated (K14):

- The true pricing calculation is the Annual Percentage Rate (APR) as defined at www.mftransparency.org. This calculation does not consider compounding, which is sometimes included in Truth-in-Lending legislation. With compounding the actual price would be higher, sometimes even double the calculated APR price
- By clicking the SHOW DETAILS button, you can see a breakdown of the price by each price component
- The formula used to calculate the APR also includes the effect of obligatory contributions to insurance and savings accounts, but not eventual interest returns on blocked savings (which have negligible impact on the true price) nor insurance returns (which are only paid out in extreme circumstances).

3.1.4 Product Activity in Year 0

| | LOAN PRODUCT NUMBER | 1 | TOTAL | | TOTAL - CONTROL |
|-----|---|-----------|-----------|---|-----------------|
| K02 | NAME OF LOAN PRODUCT | ... | |  | No Errors |
| | PRODUCT ACTIVITY, 2018 | | | | |
| K15 | Gross loan portfolio 2018 | 1,000,000 | 1,000,000 | | |
| K16 | Nr of borrowers at the end of 2018 | 1,000 | 1,000 | ↔ | 1,000 OK |
| K17 | Average outstanding loan size | 1,000 | 1,000 | ↔ | 1,000 |
| K18 | Number of years this loan product active | 4 | | | |
| K19 | Borrowers annualized retention rate | 75% | 75% | ↔ | 5% |
| K20 | Nr of borrowers per loan officer at end of 2018 | 250 | 250 | ↔ | 250 OK |
| K21 | Mandatory deposit balance | 504,901 | 504,901 | ↔ | 504,901 OK |

Line K15- Gross loan portfolio:

Balance of loans outstanding per loan product (gross = before provisioning). To ensure that the total for all products matches exactly with the figure entered on the MFI Factsheet, the figure for Product 1 is calculated with a formula.

Line K16- Number of borrowers at the end of the year:

Number of active borrowers at the end of the year for each product. If the product is a group loan, convert the number of group loans to the number of borrowers for that product.

Line K17- Average outstanding loan size:

This is calculated as the GLP divided by the number of borrowers.

Line K18- Number of years this loan product active:

Enter here the approximate number of years that this product has been sold. This will be used to estimate the number of borrowers on the first, second, and future loan cycles.

Line K19- Borrowers annualized retention rate:

Borrower retention is a critical number for projections, but often a difficult one to define and measure.

For projection purposes do NOT use the estimated retention rate as calculated in the MFI Factsheet, as this calculation includes new clients in the year and also is not calculated for each loan product.

The proper figure to use is the ANNUALIZED retention rate. Start by calculating the retention rate by loan cycle: For every 100 loans paid back in Product X, if 80 borrowers receive a new loan the cycle retention rate is 80%. It is essential to convert this to an annualized figure, because loan term has a dramatic impact on this figure. An 80% loan cycle rate is "good" for a 12 month loan, but on a 3 month loan, it means at the end of the 4th cycle (12 months) there are only 41% of the clients still borrowing ($80\% \times 80\% \times 80\% \times 80\%$). The per-cycle rate can be annualized by using this formula:

$$(\text{loan cycle retention rate}) ^ (12/\text{loan term})$$

e.g., $80\% ^ {12/12} = 80\%$

e.g., $80\% ^ {12/6} = 64\%$

Line K20- Number borrowers per Loan officer at end of the year:

Average number of borrowers per Loan officer assuming that the loan officer only manages this credit product.


In cases where loan officers manage multiple products this will be more difficult to calculate. If all loan products take about the same amount of time for loan approval and monitoring, then the product caseloads are likely very similar.

If one product takes significantly longer to prepare and monitor, that product may have a lower case load. Estimate the number of borrowers the loan officer could manage if working solely with that one loan product on a full time basis. You will have the option to modify caseloads in the projection years on the Loan Portfolio sheet.

Line K21- Mandatory Deposit Balance:

Enter the estimated amount of mandatory deposits for each loan product that requires mandatory deposits. The total for all loan products must add up to the figure from the MFI Factsheet as shown to the right.

3.1.5 Social Indicators

| | LOAN PRODUCT NUMBER | 1 | TOTAL | | TOTAL - CONTROL |
|-----|---|------|-------|--|---|
| K02 | NAME OF LOAN PRODUCT | ... | | |  No Errors |
| | SOCIAL INDICATORS | | | | |
| | CLIENTS | | | | |
| K22 | Target: % women | 50% | | | 50% |
| K23 | Target: % rural | 90% | | | 90% |
| K24 | SEGMENTATION GROSS LOAN PORTFOLIO | | | | |
| | Target: % for agricultural activities | 51% | | | 51% |
| | Target: % for production/ craft activities | 5% | | | 5% |
| | Target: % for services/trade activities | 44% | | | 44% |
| | Target: % for consumption and others | | | | 0% |
| K25 | Check if the targets for all sectors together is 100% | 100% | | | 100% OK |

Line K22- Target: % women:

The number of active borrowers is split by gender to calculate this social indicator.

Line K23- Target: % rural:

The number of active borrowers is split into urban and rural groups to calculate this social indicator.

Line K24- Gross loan portfolio (segmentation):

Distribution of the loan portfolio among the different production and service sectors. This distribution is not expressed in real term but in percentages.

The different sectors in consideration are:

1. agricultural activities
2. production/craft activities
3. services/trade activities
4. consumption & others

Line K25- Check if the targets for all sectors together is 100%:

The total for all sectors has to be equal to 100%

3.2 Projecting growth in Loan Portfolio

Below figure shows the top section found on the Loan Portfolio sheet, where all projections for a single loan product are made. If you have more than one loan product active, this section will be repeated for each loan product.

It may be that you plan to introduce new loan products in the five-year plan. You do so by first adding that product on the Loan Products sheet. Then on the Loan Portfolio sheet, you can enter figures in the appropriate year. You can, for convenience, indicate loan amounts and pricing information in Year 0 or Year 1, even though the loan product isn't marketed until a future year. The only figures that affect your financials are when you have borrowers receiving loans and paying interest and fees on those loans.

| microvision PROJECTED LENDING ACTIVITY | | | | | | | | REPORT IN |
|---|---|------------------|----------------|------------------|------------------|------------------|------------------|--------------|
| NAME OF INSTITUTION | | | | | | | | 1 BOB |
| PLEASE FILL IN ALL YELLOW-COLOURED CELLS | | | | | | | | |
| Hide details | | | | | | | | |
| Show graphs | | | | | | | | |
| | | | | | | | | |
| | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 5 Yr Total |
| P01 | <input checked="" type="checkbox"/> Link all future loan amounts to inflation | | | | | | | |
| LOAN PRODUCT NUMBER 1: BUSINESS LOAN | | | | | | | | |
| P02p1 | Average loan size for: | | | | | | | |
| | First loan | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | |
| | Second loan | 1,250 | 1,250 | 1,250 | 1,250 | 1,250 | 1,250 | |
| | Third loan | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | |
| | Fourth loan | 1,600 | 1,600 | 1,600 | 1,600 | 1,600 | 1,600 | |
| | Fifth loan | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 | |
| | Sixth and future loans | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | |
| Loan repayment | | | | | | | | |
| P03p1 | Loan term (months) | 12 | 12 | 12 | 12 | 12 | 12 | |
| Borrower activity | | | | | | | | |
| P04p1 | Borrowers annualized retention rate | 75% | 75% | 75% | 75% | 75% | 75% | |
| P05p1 | Number of loans disbursed | | 1,500 | 2,000 | 2,500 | 2,750 | 3,000 | 11,750 |
| P06p1 | Number of loans maturing | | (1,000) | (1,500) | (2,000) | (2,500) | (2,750) | (9,750) |
| P07p1 | Number of borrowers (target) | 1,000 | 1,500 | 2,000 | 2,500 | 2,750 | 3,000 | |
| P08p1 | Number of borrowers (calculated) | | 1,500 | 2,000 | 2,500 | 2,750 | 3,000 | |
| P09p1 | First loans as % of active loans | | 50% | 43% | 40% | 32% | 31% | |
| Actions of borrowers with maturing loans | | | | | | | | |
| P10p1 | Borrowers renewing | | 748 | 1,142 | 1,499 | 1,879 | 2,070 | 7,338 |
| | Borrowers discontinuing this product | | 252 | 358 | 501 | 621 | 680 | 2,412 |
| Portfolio activity | | | | | | | | |
| P11p1 | Total loan disbursements | | 1,809,800 | 2,477,700 | 3,159,900 | 3,606,000 | 4,016,400 | 15,069,800 |
| P12p1 | Total loan repayments | | (1,824,240) | (2,103,040) | (2,774,514) | (3,345,898) | (3,773,541) | (13,821,233) |
| P13p1 | Less write-off | | (9,896) | (12,010) | (15,678) | (18,593) | (20,892) | (77,070) |
| P14p1 | Gross Outstanding Portfolio | 1,000,000 | 976,733 | 1,339,383 | 1,709,092 | 1,950,600 | 2,172,567 | |
| P15p1 | Average outstanding loan balance per borrower | 1,000 | 651 | 670 | 684 | 709 | 724 | |
| P16p1 | Average loan disbursement size | | 1,207 | 1,239 | 1,264 | 1,311 | 1,339 | |
| P17p1 | Average loan disbursement size (real) | | 1,207 | 1,239 | 1,264 | 1,311 | 1,339 | |
| P18p1 | Outstanding portfolio (real) | | 976,733 | 1,339,383 | 1,709,092 | 1,950,600 | 2,172,567 | |
| Staff required | | | | | | | | |
| P19p1 | Number of borrowers per loan officer (caseload) | 250 | 250 | 250 | 250 | 250 | 250 | |
| P20p1 | Number of loan officers required (man/year) | 4.0 | 6.0 | 8.0 | 10.0 | 11.0 | 12.0 | |

Line P01- Link all future loan amounts to inflation:

Tick this checkbox and all loan amounts will increase each year by the inflation rate indicated on the IDENTIFICATION sheet. The inflation links are used by the formulas that have been pre-loaded into the input cells on the six rows. If you replace those formulas, the automatic inflation increase will not happen.

Line P02- Average loan size by cycle:

Many microfinance loan products have clients get a sequence of loans, often with the loan amounts gradually increasing. You can indicate the progression of loan sizes here. You must enter loan amounts PER BORROWER. Thus, for a group loan product, you would need to divide the group loan amount by the number of members in that group. This allows Microvision to generate financial and statistical information per borrower.

Note:

- If a loan product does have clients repeat but the amounts generally are the same, you can enter the same amount for each cycle
- If a loan product doesn't have clients repeat, you can enter 0 amounts for higher cycles and enter a retention rate of 0% further below on this worksheet
- If a product does repeat, but only a few times, e.g., 3 times, enter 0 for the higher cycles. You should then enter a relatively low retention rate further below so that very few clients pass the 3rd loan cycle

Line P03- Loan term (months):

Enter the average repayment period for each loan type in months (no decimals!) - this is the real average loan duration and thus not the maximal allowed duration as usually written in advertisements for the product.

If a product has a wide range of loan terms, e.g., loans between 6 and 18 months, your projections may be more accurate if you split this into two products - loans from 6-12 months (entering 9 as the average) and loans 13-18 months (entering 15 as the average).

3.2.1 Borrower activity

Line P04- Borrowers annualized retention rate:

Borrower retention is a critical number for projections, but often a difficult one to define and measure. For projection purposes DO NOT use the estimated retention rate as calculated in the MFI Factsheet, as this calculation includes new clients in the year and also is not calculated for each loan product.

The proper figure to use is the ANNUALIZED retention rate. Start by calculating the retention rate by loan cycle: For every 100 loans paid back in Product X, if 80 clients of this first batch of loans receive a new loan the cycle retention rate is 80%. It is essential to convert this to an annualized figure, because loan term has a dramatic impact on this figure. An 80% loan cycle rate is "good" for a 12 month loan, but on a 3 month loan, it means at the end of the 4th cycle (12 months) there are only 41% of the clients still borrowing ($80\% \times 80\% \times 80\% \times 80\%$). The per-cycle rate can be annualized by using this formula:

$$(\text{loan cycle retention rate}) ^ {12/\text{loan term}}$$

e.g., $80\% ^ {12/12} = 80\%$

e.g., $80\% ^ {12/6} = 64\%$

Line P05- Number of loans disbursed:

The total number of loans disbursed for this product during the 12 months. For loan terms less than 12 months, a borrower might receive more than one loan. This calculation is done on the LOAN DETAIL sheet and stored as a reference. You can examine the LOAN DETAIL sheet to see month-by-month activity for this indicator.

Line P06- Number of loans maturing:

The total number of loans that mature for this product during the 12 months. This calculation is done on the LOAN DETAIL sheet and stored as reference. You can examine the LOAN DETAIL sheet to see month-by-month activity for this indicator. The number is presented as a negative so that the flow of the numbers is clear in the presentation. Disbursements are positive; matured loans and repayments are negative.

Line P07 and P08 - Number of borrowers (target) and (calculated):

The number of active borrowers at the end of the year. This first line is a TARGET number that you enter to indicate the growth (or decline) for this product each year. This calculation is done on the LOAN DETAIL sheet and stored as reference. You can examine the LOAN DETAIL sheet to see month-by-month activity for this indicator.

This target figure on the first is used in conjunction with the borrower retention rate. If you are projecting a *decline* in active borrowers but have indicated a relatively high retention rate above, the calculation engine *may* end up with a quantity higher than your target. This will show up on the second line – number of borrowers (calculated) – and an error message will display to the right.

If this happens, adjust the retention rate downwards, as this is the only way for the number of active borrowers to decline fast enough to meet your target. For loan products with very long loan terms, it may not be possible to reduce to the target level you have entered. In this case, increase your target to a realistic figure.

Line P09- First loans as % of active loans:

A useful reference number, this shows the number of borrowers that are on their first loan for this product at the end of the year. For products with high growth rates and/or low retention rates, this figure may be rather high. You will need to compare this figure with your market research to determine if this figure is attainable. This calculation is done on the LOAN DETAIL sheet and stored as reference. You can examine the LOAN DETAIL sheet to see month-by-month activity for this indicator.

Line P10- Actions of borrowers with maturing loans:

This section shows the actions of borrowers with matured loans throughout the year. Borrowers have two choices when a loan completes - to renew and proceed to the next higher loan cycle, or to stop borrowing for this loan product (in which case, they may stop borrowing entirely or they may borrow from a different loan product). This calculation is done on the LOAN DETAIL sheet and stored as reference. You can examine the LOAN DETAIL sheet to see month-by-month activity for this indicator.

3.2.2 Portfolio activity

Line P11- Total Loan Disbursements:

The total amount disbursed for this product during the 12 months. This calculation is done on the LOAN DETAIL sheet and stored as reference. You can examine the LOAN DETAIL sheet to see month-by-month activity for this indicator.

Line P12- Total Loan Repayments:

The total amount of loan principal repaid for this product during the 12 months. This calculation is done on the LOAN DETAIL sheet and stored as reference. You can examine the LOAN DETAIL sheet to see month-by-month activity for this indicator. The number is presented as a negative so that the flow of the numbers is clear in the presentation. Disbursements are positive; matured loans and repayments are negative.

Line P13- Less write-off:

The total amount written off for this product during the 12 months. This is calculated using the write-off rate indicated further down on this worksheet. The model assumes that write-offs are done at least once every year. More frequent write-off is not relevant for annual projections. This calculation is done on the LOAN DETAIL sheet and stored as reference. You can examine the LOAN DETAIL sheet to see month-by-month activity for this indicator.

Line P14- Gross Outstanding Portfolio:

The total Gross Loan Portfolio for this loan product at the end of the year. This calculation is done on the LOAN DETAIL sheet and stored as reference. You can examine the LOAN DETAIL sheet to see month-by-month activity for this indicator.

Line P15- Average outstanding loan balance per borrower:

This is the GLP at the end of the year divided by the number of active borrowers at the end of the year.

Line P16- Average loan disbursement size:

This is the total disbursements in the year divided by the number of loans disbursed in the year.

Line P17- Average loan disbursement size (real):

The figure is adjusted by the CPI as calculated with the inflation rates entered on the IDENTIFICATION sheet.

Line P18- Outstanding portfolio (real):

The figure is adjusted by the CPI as calculated with the inflation rates entered on the IDENTIFICATION sheet.

3.2.3 Staff required

Line P19- Number of borrowers per Loan officer (caseload):

Average number of borrowers per Loan officer assuming that the loan officer only manages this credit product. In cases where loan officers manage multiple products this will be more difficult to calculate. If all loan products take about the same amount of time for loan approval and monitoring, then the product caseloads are likely very similar.

If one product takes significantly longer to prepare and monitor, that product may have a lower case load. Estimate the number of borrowers the loan officer could manage if working solely with that one loan product.

Line P20- Number of Loan officers needed (FTE/year):

This is the number of active borrowers divided by the case load figure above. This indicates the number of loan officers required if they were to work only with this loan product, i.e., Full-Time Equivalent (FTE) loan officers. If loan officers work with multiple products, the FTE figures calculated will add up the total number of loan officers you will need to hire.

3.2.4 Portfolio Quality

Below the product-specific projection sections there is section to work on the assumptions of the portfolio quality. In this section, you will see one line for each active loan product, and you will need to input the quality indicators for each product. The weighted average figures input on the MFI Factsheet are shown for Year 0, and the figure you enter for each product need to come close to agreeing with those figures.

| | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 5 Yr Total |
|------------|---|---------|--------|--------|--------|--------|---------|------------|
| | PORTFOLIO QUALITY | | | | | | | |
| P21 | PAR >1 day | | | | | | | |
| | Weighted Average | 12.7% | 12.7% | 12.7% | 12.7% | 12.7% | 12.7% | |
| | Loan product number 1: Business Ln | 12.7% | 12.7% | 12.7% | 12.7% | 12.7% | 12.7% | |
| P22 | PAR > 30 days | | | | | | | |
| | Weighted Average | 12.6% | 12.6% | 12.6% | 12.6% | 12.6% | 12.6% | |
| | Loan product number 1: Business Ln | 12.6% | 12.6% | 12.6% | 12.6% | 12.6% | 12.6% | |
| P23 | Loan Write-off ratio | | | | | | | |
| | Weighted Average | 3.2% | 3.2% | 3.2% | 3.2% | 3.2% | 3.2% | |
| | Loan product number 1: Business Ln | 3.2% | 3.2% | 3.2% | 3.2% | 3.2% | 3.2% | |
| | Cross-check from MFI Factsheet | 3.2% | Ok | | | | | |
| P24 | Loan loss reserve ratio | | | | | | | |
| | Weighted Average | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | |
| | Loan product number 1: Business Ln | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | |
| | Cross-check from MFI Factsheet | 4.0% | Ok | | | | | |
| | Provision, Write-off, and Reserve | | | | | | | |
| P25 | Loan loss provisioning expenses during this year | 226,127 | 32,600 | 65,142 | 82,681 | 89,907 | 101,095 | 371,425 |
| P26 | Written-off loans (as % of outstanding loan portfolio) | 103,163 | 32,266 | 46,878 | 62,791 | 74,842 | 86,510 | 303,287 |
| P27 | Loan loss reserves for this loan product (on balance sheet) | 40,000 | 40,333 | 58,597 | 78,488 | 93,553 | 108,138 | |
| | Cross-check from MFI Factsheet | 40,000 | Ok | | | | | |

Line P21- PAR >1 day: Portfolio at risk (PAR):

The outstanding balance of loans with arrears of more than 1 day divided by the gross outstanding portfolio. As the ratio is generated with the value of the entire unpaid principal balance of all loans outstanding that have one or more instalments of principal past due, PAR therefore measures the complete risk.

Line P22- PAR > 30 days: Portfolio at risk (PAR):

The outstanding balance of loans with arrears of more than 30 days divided by the gross outstanding portfolio. As the ratio is generated with the value of the entire unpaid principal balance of all loans outstanding that have one or more instalments of principal past due, PAR therefore measures the complete risk.

Line P23- Loan write-off ratio:

Indicate the annual loan write-off ratio for each loan product. This is calculated as the total amount written-off divided by the GLP at the end of the year.

Line P24- Loan loss reserve ratio:

Provide here the % of loan loss reserves that has to be created for each loan product given the expected PAR and write-off figures. The reserves should be at least the amount required by prudential regulation of the central bank, but an MFI can decide to be careful and create more reserves than the legal minimum. You will see the current loan loss reserve ratio for Year 0 displayed to provide some guidance.

In order for the Balance Sheet to balance, the figure for Product 1 is calculated to ensure that the totals for all products match the figure on the MFI Factsheet.

Line P25- Loan loss provisioning expenses during this year:

This is calculated as the amount of new provisions made during the year to maintain the desired loan loss reserve.

The calculation is:

$$\begin{aligned} \text{Provisioning expense} &= \text{Reserves at end of current year} \\ &\quad - \text{Reserves at end of previous year} \\ &\quad + \text{write-offs during the year} \end{aligned}$$

The provision expense shows up on the Income Statement as an expense. The provision amount will vary significantly based on changes in growth of the loan portfolio.

Line P26- Written-off loans:

Calculated as the loan write-off ratio multiplied by the GLP at the end of the year.

Line P27- Loan loss reserves for this loan product (on Balance Sheet):

Calculated as the Loan Loss Reserve Ratio multiplied by the GLP at the end of the year.

3.2.5 Total Loan Information

The final section on the Loan Portfolio sheet is an aggregate output section showing total loan information. In this section, when you click on the Show details button, you will see one line for each loan product.

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 5 Yr Total |
|---|------------------|------------------|------------------|------------------|------------------|------------------|--------------|
| TOTAL LOAN INFORMATION | | | | | | | |
| Borrower Activity | | | | | | | |
| P05 Number of loans disbursed | 11,300 | 1,500 | 2,000 | 2,501 | 2,751 | 3,001 | 11,753 |
| P06 Number of loans maturing | | (1,000) | (1,500) | (2,000) | (2,501) | (2,751) | (9,752) |
| P08 Number of borrowers (calculated) | 1,000 | 1,500 | 2,000 | 2,501 | 2,751 | 3,001 | |
| P04 Borrowers annualized retention rate | 75% | 75% | 75% | 75% | 75% | 75% | |
| P09 First loans as % of active loans | | 49% | 43% | 40% | 31% | 31% | |
| Actions of borrowers with maturing loans | | 1,000 | 1,500 | 2,000 | 2,501 | 2,751 | |
| Borrowers renewing | | 758 | 1,135 | 1,503 | 1,890 | 2,072 | 7,358 |
| Borrowers discontinuing this product | | 242 | 365 | 497 | 611 | 679 | 2,394 |
| Portfolio Activity | | | | | | | |
| P11 Total Loan Disbursements | 10,752,550 | 1,833,575 | 2,645,798 | 3,533,335 | 4,211,806 | 4,871,411 | 17,095,925 |
| P12 Total Monthly Repayments | | (1,794,308) | (2,149,117) | (2,981,121) | (3,766,928) | (4,426,935) | (15,118,409) |
| P13 Less Write-off | | (31,572) | (40,072) | (54,947) | (68,261) | (79,855) | (274,706) |
| P14 Gross Outstanding Portfolio | 1,000,000 | 1,008,328 | 1,464,937 | 1,962,203 | 2,338,821 | 2,703,442 | |
| P28 Portfolio in Arrears > 1 day | 127,000 | 128,058 | 186,047 | 249,200 | 297,030 | 343,337 | |
| P29 Portfolio in Arrears > 30 days | 126,000 | 127,049 | 184,582 | 247,238 | 294,691 | 340,634 | |
| Average outstanding loan balance per borrower | 1,000 | 672 | 732 | 785 | 850 | 901 | |
| Average loan disb. size | 952 | 1,222 | 1,323 | 1,413 | 1,531 | 1,623 | |
| Number of Loan Officers required (man/year) | 4.0 | 6.0 | 8.0 | 10.0 | 11.0 | 12.0 | |

Lines marked P5 through P14 are identical to the equivalent lines in the product-specific sections above and provide a sum total of those lines. There are only two new lines shown in this section:

Line P28- Portfolio in Arrears > 1 day:

Calculated as the PAR percentage rate entered above multiplied by the GLP.

Line P29- Portfolio in Arrears > 30 days:

Calculated as the PAR percentage rate entered above multiplied by the GLP.

3.3 Enter assumptions on income

The largest portion of your institution's income comes from the loan portfolio. This income is calculated on the basis of the pricing features that were initially entered in the Loan Products sheet (K08-K14). On the Income sheet you have the possibility (though this is not obligatory) to modify any of these pricing components except the interest rate calculation method.

The Income sheet also provides the possibility to forecast all other types of income:

1. Interest that you will receive on your bank accounts and deposits (R16)
2. Other financial income (R17)
3. Exchange differences: profit or loss (R18 in the hidden details section)
4. Other operating income (non-extraordinary) (R19)
5. Admission fees for new members (R21). It is derived from the growth in membership defined on the next page (sheet Savings, Item Ref. E14)
6. Non-operating income (R22)
7. Extraordinary income (R23)
8. In the special case of insurance income, you can also enter the projected pay out in order to determine your net income (R12).

The following section explains how to use each input line on the Income sheet.

3.3.1 Interest rate information

This section relates to other income-generating interest rates in addition to the rate you charge on your loan products.

| | Year 2016 | Year 2017 | Year 2018 | Year 2019 | Year 2020 | Year 2021 | 5 Yr Total |
|---|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| INTEREST RATE INFORMATION | | | | | | | |
| R01 Penalty interest rate on arrears (annualized) | | 36.0% | 36.0% | 36.0% | 36.0% | 36.0% | |
| R02 Recovery rate on loan product interest owed | | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | |

Line R01- Penalty interest rate on arrears (annualized):

The yearly interest that is put ON TOP of the normal interest rate because of late repayments. This interest rate is charged on the overdue amount as calculated by the PAR30 indicator entered on the Loan Portfolio sheet.

Line R02- Recovery rate on loan product interest owed:

The default formula is based on the loan write-off rate entered for each product on the Loan Portfolio sheet. If the write-off rate is 3%, the recovery rate is equal to 97% (1 - write-off). This assumes that the client will default on the same proportion of interest that is overdue as the principal that is written-off. You may change

this rate, but it should likely stay fairly close to the (1 - write-off) figure. You can see the results of this input in line R09.

3.3.2 Loan product pricing

This is the core section for setting pricing for your loan products. This section repeats for every loan product you have. The suffix for each line number indicates which product is shown in that section. The Year 0 figures are drawn over from the Loan Products sheet and repeated forward for each year. You can then easily change any of the pricing components by changing the figure in that year. You have a great amount of control – you can eliminate fees, you can add new fees that the product didn't use to have, you can switch from fixed-amount fee to a percentage-based fee. You have the same flexibility with mandatory deposits. The only price components you cannot change are the interest rate calculation method and the repayment frequency.

Any change takes place for that year going forward. If you change the interest rate, Microvision charges the former rate to all existing loans and the new rate to new loans. Any change in *upfront* fee, insurance, or mandatory deposit will be properly calculated. There is a potential error margin for existing loans with *ongoing* fees as they will be calculated using the new rate for their remaining payments.

| | Year 2016 | Year 2017 | Year 2018 | Year 2019 | Year 2020 | Year 2021 | 5 Yr Total |
|---|---|----------------|----------------|----------------|----------------|----------------|------------------|
| LOAN PRODUCT NUMBER 1: BUSINESS LOAN | | | | | | | |
| Loan pricing, loan product 1 | | | | | | | |
| R03p1 | Interest rate (annual) | 24.00% | 24.00% | 24.00% | 24.00% | 24.00% | 24.00% |
| R04p1 | Up-front fee (% or fixed) | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| R05p1 | On-going fee (% or fixed) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| R06p1 | Loan insurance fee (% or fixed, up-front) | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% |
| R07p1 | Mandatory deposits at disbursement (% or fixed) | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% |
| | Total income, product 1 | 274,951 | 348,362 | 452,383 | 531,984 | 596,634 | 2,204,315 |
| R08p1 | Interest income owed | 241,167 | 301,826 | 393,116 | 464,509 | 521,521 | 1,922,140 |
| R09p1 | Interest income not collected | (2,412) | (3,018) | (3,931) | (4,645) | (5,215) | (19,221) |
| R10p1 | Penalty interest due this year | 0 | 0 | 0 | 0 | 0 | 0 |
| R11p1 | Fee income | 36,196 | 49,554 | 63,198 | 72,120 | 80,328 | 301,396 |
| R12p1 | Insurance income | 18,098 | 24,777 | 31,599 | 36,060 | 40,164 | 150,698 |
| R13p1 | Portfolio Yield (incl. fees and insurance) | 27.6% | 27.9% | 27.9% | 27.7% | 27.7% | |

Line R03- Interest rate (annual):

Enter the annual interest rate (e.g. 2% per month becomes 24% per year). This rate will be calculated using the same method identified on Loan Products (flat or declining balance).

Line R04- Up-front fee (% or fixed):

All administrative or processing fees (account management, commission) **paid prior to or at loan disbursement**. These can be calculated as a % of the amount disbursed (enter as a number < 1.00, e.g., 0.02) or as a fixed amount paid per MONTH (enter as a figure > 1.00).

Line R05- On-going fee (% or fixed):

All administrative or processing fees (account management, commission) **paid throughout the loan with each loan payment**. These can be calculated as a % of the amount paid each month (enter as a number < 1.00, e.g., 0.02) or as a fixed amount paid per month (enter as a figure > 1.00). If a weekly payment loan, enter 4 times the weekly fee amount paid.

Line R06- Loan insurance fee (% or fixed, up-front):

Enter here the fee charged for loan insurance. It is assumed to be paid up-front. If the product has an on-going insurance fee, you may choose to enter the fee in the "on-going fee" section, but the income will be classified differently on your income statement. These can be calculated as a % of the amount paid at disbursement (enter as a number < 1.00, e.g., 0.02) or as a fixed amount (enter as a figure > 1.00).

Line R07- Mandatory deposits at disbursement (% or fixed):

The amount of the loan that has to be maintained as a blocked deposit (loan collateral) during the full loan term. The amount is calculated on the amounts disbursed. Microvision does not support on-going mandatory deposits. These can be calculated as a % of the amount paid at disbursement (enter as a number < 1.00, e.g., 0.02) or as a fixed amount (enter as a figure > 1.00).

3.3.3 Total income for all loan products

The next section on the Income sheet shows the total income for all loan products, totalling information from the previous sections.

| | | Hide details | | | | | | |
|---|--|--------------|----------------|----------------|----------------|----------------|----------------|------------------|
| | | Year 2016 | Year 2017 | Year 2018 | Year 2019 | Year 2020 | Year 2021 | 5 Yr Total |
| TOTAL INCOME FOR ALL LOAN PRODUCTS | | | | | | | | |
| R08T | Interest income due | | 241,167 | 301,826 | 393,116 | 464,509 | 521,521 | 1,922,140 |
| R09T | Interest income not collected | | (2,412) | (3,018) | (3,931) | (4,645) | (5,215) | (19,221) |
| R10T | Penalty interest due this year | | 0 | 0 | 0 | 0 | 0 | 0 |
| R11T | Fee income | | 36,196 | 49,554 | 63,198 | 72,120 | 80,328 | 301,396 |
| R12T | Insurance income | | 18,098 | 24,777 | 31,599 | 36,060 | 40,164 | 150,698 |
| Total income for all loan products | | | 274,951 | 348,362 | 452,383 | 531,984 | 596,634 | 2,204,315 |
| R13T | Portfolio Yield (incl. fees and insurance) | | 27.4% | 27.7% | 27.6% | 27.5% | 27.5% | |

Line R08- Interest income due:

This is calculated on the Loan Detail sheet as the total amount of interest due during the year for this product. The calculation uses monthly balances and the interest rate method indicated for this product.

Line R09- Interest income not collected:

This is calculated as the Interest income due (R08) times 1 minus the Recovery Rate for that product (R02).

Line R10- Penalty interest due this year:

Penalty interest is calculated as the annual percentage entered in Line R01 multiplied by the amount of portfolio with PAR30.

Line R11- Fee income:

This is calculated on the Loan Detail sheet as the total amount of fees (both up-front and on-going) generated during the year for this product. The calculation uses monthly balances and the fees indicated for this product.

Line R12- Insurance income:

This is calculated on the Loan Detail sheet as the total amount of insurance fees (up-front only) generated during the year for this product. The calculation uses monthly balances and the fees indicated for this product.

Line R13- Portfolio Yield (incl. fees and insurance):

For individual products, this is calculated on the Loan Detail sheet using monthly balances, adding together all interest, fees, and insurance and dividing the total by the average monthly GLP. The Portfolio Yield figure does not include penalty interest. It also differs from the APR in a sense that it does not include mandatory deposits in the calculation. For the Total Global Yield for all products, the calculation uses average GLP based on beginning and end-of-year figures because monthly figures are not available.

3.3.4 Insurance Fund Income and Payout

Microvision has the option to charge insurance for each loan product. The insurance fee produces income, and the MFI has the option of deciding on how to allocate that income. A percentage of the fees may be identified as administrative income, showing up directly on the income statement. The remainder of the income is then allocated to the insurance reserve.

| INSURANCE FUND INCOME AND PAYOUT | | | | | | | |
|----------------------------------|---|--|---|------|------|------|------|
| R12 | Insurance income | | 0 | 0 | 0 | 0 | 0 |
| | Percent as insurance administration earned income | | | 0% | 0% | 0% | 0% |
| | Insurance administration income | | 0 | 0 | 0 | 0 | 0 |
| | Allocated to insurance reserve | | 0 | 0 | 0 | 0 | 0 |
| R14 | Percent of payouts on loan portfolio | | | | | | |
| | Loan product number 1: Comercial | | | 0,0% | 0,0% | 0,0% | 0,0% |
| | Loan product number 2: ... | | | 0,0% | 0,0% | 0,0% | 0,0% |
| R15 | Paid out from loan insurance fund | | 0 | 0 | 0 | 0 | 0 |
| | Loan product number 1: Comercial | | 0 | 0 | 0 | 0 | 0 |
| | Loan product number 2: ... | | 0 | 0 | 0 | 0 | 0 |
| | Ending balance of insurance reserve | | 0 | 0 | 0 | 0 | 0 |

Line R12- Insurance income:

This is calculated on the Loan Detail sheet as the total amount of insurance fees (up-front only) generated during the year for this product. The calculation uses monthly balances and the fees indicated for this product.

Line R14- Percent of insured loan portfolio covered by insurance:

Indicate what percent of the loan portfolio is expected to be covered by the insurance reserve each year. Monitor the balance of the insurance reserve to determine if income targeted to the reserve is sufficient to cover expected payouts.

Line R15- Paid out from loan insurance fund:

The amount that the MFI expects to pay out in the form of claims to insured borrowers (when the insured event happens).

3.3.5 Other income

The next section down calculates all other forms of income. These are generally much smaller than loan portfolio income but still important to calculate.

| Hide details | | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | 5 Yr Total |
|---------------------|--|-----------|---------------|---------------|---------------|---------------|---------------|----------------|
| OTHER INCOME | | | | | | | | |
| R16 | Interest and fee income from investments | | | | | | | |
| | Interest rate, short-term deposits held by institution | 1.9% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | |
| | Interest bearing deposits and investments < 1 year | 2,196,582 | 697,900 | 1,054,304 | 1,293,245 | 1,543,064 | 1,806,517 | |
| | Interest rate, long-term deposits held by institution | 1.9% | 1.9% | 1.9% | 1.9% | 1.9% | 1.9% | |
| | Investments > 1 year | 2,000 | 2,078 | 2,159 | 2,243 | 2,331 | 2,422 | |
| | Interest and fee income from investments | 31,523 | 28,983 | 17,562 | 23,517 | 28,406 | 33,541 | 132,009 |
| R17 | Other income from financial services | | | | | | | |
| | Other financial income (excl. income from client deposits) | | 4,000 | 3,000 | 2,000 | 1,000 | 0 | 10,000 |
| | Other financial income (incl. income from client deposits) | 3,902 | 4,000 | 3,000 | 2,000 | 1,000 | 0 | |
| | Exchange differences: gain / loss | | | | | | | |
| R18 | Exchange differences: gain / loss | 0 | | | | | | 0 |
| | Other operating income (non-extraordinary) | | | | | | | |
| R19 | Other operating income (non-extraordinary) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| R20 | Reversal of amortization of subsidized investments | | 0 | 0 | 0 | 0 | 0 | 0 |
| R21 | Admission fee/member for new members (coops only) | | | | | | | |
| | Income from member admission fees (coops only) | | 0 | 0 | 0 | 0 | 0 | 0 |
| | Insurance administration income | | 18,687 | 24,616 | 29,082 | 32,816 | 35,479 | 140,679 |
| | Total other operating income (non-extraordinary) | | 18,687 | 24,616 | 29,082 | 32,816 | 35,479 | 140,679 |
| | Non-operating income (non-extraordinary) | | | | | | | |
| R22 | Non-operating income (non-extraordinary) | 0 | | | | | | 0 |
| | Extraordinary income | | | | | | | |
| R23 | Extraordinary income | 0 | | | | | | 0 |

Line R16- Interest and fee income from investments:

Enter the interest rates received on deposits the MFI holds with e.g. a commercial bank. Enter rates earned on short-term and long-term deposits. Note that short-term deposits are split into two groups. First is the client savings deposits that are held in reserve, as defined on the Savings sheet. Second is any cash in excess of immediately needs as defined on the Funding sheet. Currently in Microvision, interest income is not calculated for excess cash, as this results in circular error calculations in Microvision. This amount of income not calculated by Microvision is extremely small, less than 1% of your total institutional income.

Line R17- Other income from financial services:

The second line already shows income from fees charged on client deposit accounts, as calculated in Line E11 on the Savings sheet. To this you can add any other financial income in the first line.

Line R18- Exchange differences: gain / loss:

You can calculate an estimate of gain or loss made on exchange rates during the year.

Line R19- Other operating income (non-extraordinary):

Other operating income (non-extraordinary) is generated from other financial services that are not related to the savings and credit activities. This item may include revenues from the financial services such as payment services or insurance. This item does not include any revenue that is generated from activities such as merchandise sales or training fees. However, if the MFI views training as an integral element of the financial services it provides, then training revenue may have been included in the credit fees.

Line R20- Reversal of amortization of subsidized investments:

The reversal of the subsidies after amortization is calculated on the Investment sheet, line N08.

Line R21- Admission fee/member for new members (coops only):

The amount a new member has to pay for becoming a member. The price of one share or a starting package. Note that this is considered income and does not show up as share capital.

Line R22- Non-operating income (non-extraordinary):

All revenue not directly related to core microfinance operations, such as revenue from business development services, training or sale of merchandise. Donations and revenues from grants can also be considered non-operating revenue, but they have to be included in their own account (B29 in MFI Factsheet).

Line R23- Extraordinary income:

Extraordinary income, except grants for investment and loan fund (which come under donated capital in the Balance Sheet). Income can only be considered extraordinary when it is not likely to be repeated in coming years. Preferably this account should be used as little as possible and only contain those elements that must be considered truly extra-ordinary.

3.4 Review the Loan Detail sheet (optional)

The Loan Detail sheet is an optional, advanced output sheet. If you are only interested in results and not curious about how Microvision generates those results, you can skip this section and get on with real work!

To view the "Loan Detail" sheet, simply check the "Show advances Loan Detail sheet" box at the top of the "Loan Portfolio" page as shown below:

MV03 **microvision** PROJECTED LENDING ACTIVITY

NAME OF INSTITUTION: Salsa REPORT IN: 1 MAD

Show Seasonality sheet

Show advanced Loan Detail sheet

Show details Show graphs

2018 2019 2020 2021 2022 2023 5 Yr Total

P01 Link all future loan amounts to inflation

LOAN PRODUCT NUMBER 1: COMMERCIAL

P02p1 Average loan size for:

| | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|
| First Loan | 1,000 | 1,039 | 1,080 | 1,122 | 1,165 | 1,211 |
|------------|-------|-------|-------|-------|-------|-------|

This sheet is used by Microvision to calculate the specific outputs of each loan product. These outputs are then displayed on all the main Microvision sheets. If you are interested in seeing and understanding how these calculations are generated, you can open up the Loan Detail sheet by clicking the checkbox on the top of the Loan Portfolio sheet.

The Loan detail sheet shows the calculations for only one loan product at a time. You can change the loan product number in the top left corner of the sheet to view the information for that loan product. The sheet generates month-by-month detail for the loan product, using the inputs you have entered elsewhere in Microvision. It also generates four useful monthly graphs. A partial screenshot of the Loan Detail sheet is shown here:

MV03 **microvision** MONTHLY DETAIL LOAN PRODUCT CALCULATIONS

Show details Month/Syr Include all calculation lines when showing detail

1 Product number Business Loan

2017

Initial Balance Jan-17 Feb-17 Mar-17 Apr-17 May-17 Jun-17 Jul-17 Aug-17 Sep-17 Oct-17 Nov-17 Dec-17 Jan-18 Feb-18

| Totals | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | Jul-17 | Aug-17 | Sep-17 | Oct-17 | Nov-17 | Dec-17 | Jan-18 | Feb-18 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Number of loans maturing | 8,151 | 1,018 | 1,019 | 1,019 | 1,019 | 1,019 | 1,019 | 1,019 | 1,019 | 0 | 0 | 0 | 0 | 0 |
| Principal repayment | 7,347,843 | 1,437,894 | 1,432,434 | 1,227,974 | 1,023,312 | 818,649 | 613,987 | 409,325 | 204,662 | 0 | 0 | 0 | 0 | 0 |
| Number of borrowers (target) | 1,000 | | | | | | | | | | | | | |
| Monthly growth | 170 | Adj: | 0.0% | | | | | | | | | | 212 | |
| Monthly seasonality | 0.0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Number of borrowers (target) | 8,151 | 8,321 | 8,491 | 8,660 | 8,830 | 9,000 | 9,170 | 9,340 | 9,510 | 9,679 | 9,849 | 10,019 | 10,189 | 10,401 |
| Borrowers annualized retention rate | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% |
| Retention rate by cycle | 79% | 79% | 79% | 79% | 79% | 79% | 79% | 79% | 79% | 79% | 79% | 79% | 79% | 79% |
| Number of loans disbursed | 1,188 | 1,189 | 1,188 | 1,189 | 1,189 | 1,189 | 1,189 | 1,189 | 1,357 | 1,359 | 1,358 | 1,359 | 1,401 | 1,401 |
| Number of loans maturing | (1,019) | (1,019) | (1,019) | (1,019) | (1,019) | (1,019) | (1,019) | (1,019) | (1,188) | (1,189) | (1,188) | (1,189) | (1,189) | (1,189) |
| Number of borrowers (calculated) | 8,151 | 8,321 | 8,491 | 8,660 | 8,830 | 9,000 | 9,170 | 9,340 | 9,510 | 9,679 | 9,849 | 10,019 | 10,189 | 10,401 |
| First loans as % of active loans | 44% | 42% | 41% | 39% | 38% | 36% | 35% | 34% | 32% | 32% | 32% | 32% | 32% | 32% |
| Actions of borrowers with maturing loans | 1,018 | 1,019 | 1,019 | 1,019 | 1,019 | 1,019 | 1,019 | 1,019 | 1,188 | 1,189 | 1,188 | 1,189 | 1,189 | 1,189 |
| Borrowers renewing | 804 | 804 | 804 | 804 | 804 | 804 | 804 | 804 | 938 | 938 | 937 | 938 | 938 | 938 |
| Borrowers discontinuing this product | 214 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 250 | 251 | 251 | 251 | 251 | 251 |
| Number of loan officers required (month/year) | 2,231,472 | 2,233,351 | 2,231,472 | 2,233,351 | 2,233,351 | 2,233,351 | 2,233,351 | 2,233,351 | 2,548,912 | 2,552,889 | 2,550,791 | 2,552,889 | 2,734,190 | 2,734,190 |
| Total loan disbursements | (1,627,258) | (1,678,992) | (1,736,794) | (1,800,587) | (1,870,944) | (1,947,811) | (2,031,246) | (2,121,700) | (2,219,070) | (2,295,238) | (2,392,475) | (2,330,684) | (2,369,796) | (2,430,538) |
| Less write-off | (9,842) | (10,536) | (11,362) | (12,008) | (12,570) | (13,037) | (13,401) | (13,653) | (13,784) | (14,206) | (14,585) | (14,910) | (15,367) | (15,653) |
| Less insurance coverage | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gross Outstanding Portfolio | 7,347,843 | 7,962,917 | 8,595,248 | 9,249,816 | 9,925,911 | 1,063,448 | 1,132,218 | 1,202,273 | 1,274,218 | 1,348,238 | 1,424,238 | 1,502,238 | 1,582,238 | 1,664,238 |
| Average outstanding loan balance per borrower | 904 | 957 | 1,002 | 1,038 | 1,066 | 1,084 | 1,094 | 1,094 | 1,085 | 1,099 | 1,109 | 1,114 | 1,116 | 1,127 |
| Average loan disbursement size | | 1,878 | 1,878 | 1,878 | 1,878 | 1,878 | 1,878 | 1,878 | 1,878 | 1,878 | 1,878 | 1,878 | 1,878 | 1,952 |

Using the loan inputs drawn from other sheets, the loan outputs are then generated and stored in a special section at the bottom of the Loan Detail sheet that holds outputs for all ten products. These outputs are then referenced by the other sheets in Microvision to generate your projections. The following screenshot shows the summary input and output sections that you can view after clicking the Show Details button:

| MVO5 microvision | | MONTHLY DETAIL LOAN PRODUCT CALCULATIONS | | | | | | | | | |
|--|---|--|----------|----------|----------|----------------|--------|--------|--------|--------|--------|
| <input type="checkbox"/> Hide details Month/Syr | | <input type="checkbox"/> Include all calculation lines when showing detail | | | | | | | | | |
| 1 Product number | | 2017 | | | | | | | | | |
| Business Loan | | Initial | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | Balance | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | Jul-17 | Aug-17 | Sep-17 |
| Loan projection inputs | | These sections pull info from Loan Product, Loan Portfolio and Income sheets | | | | | | | | | |
| y column headings | Year 0 Information for the 10 products | | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | Average loan size for: | from Loan Products | | | | | | | | | |
| | First loan | 1,808 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Second loan | 1,808 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Third loan | 1,808 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Fourth loan | 1,808 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Fifth loan | 1,808 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sixth and future loans | 1,808 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Loan term (months) | 8 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| | Grace period (months) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | End-term loan? | FALSE | FALSE | FALSE | FALSE | FALSE | FALSE | FALSE | FALSE | FALSE | FALSE |
| | Interest calculation method | from Loan Products | | | | | | | | | |
| | Interest rate (annual) | 27.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| | Up-front fee (% or fixed) | 2.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| | On-going fee (% or fixed) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| | Loan insurance fee (% or fixed, up-front) | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| | Mandatory deposits at disbursement (% or fixed) | 21.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| | Number of borrowers (target) | from Loan Products | | | | | | | | | |
| | Gross Outstanding Portfolio | 8,151 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Borrowers annualized retention rate | 7,367,843 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Average loan disbursement size | 70% | 80% | 80% | 80% | 80% | 80% | 80% | 80% | 80% | 80% | |
| Number of years this loan product active | 1,808 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Loan write-off ratio | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent of insured loan portfolio covered by insurance | 1.6% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Number of borrowers per Loan officer (caseload) | from Loan Products | | | | | | | | | | |
| Monthly seasonality, weighted | 250 | 226 | 226 | 226 | 226 | 226 | 226 | 226 | 226 | 226 | |
| Mandatory deposits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2,504,901 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Loan projection outputs | These sections show the outputs stored for each product | | | | | | | | | | |
| y column headings | Loan product 1 | | | | | Loan product 2 | | | | | |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
| | Number of borrowers (calculated) | 14,943 | 18,341 | 23,263 | 28,743 | 36,263 | 0 | 0 | 0 | 0 | 0 |
| | Number of loans disbursed | (12,905) | (15,794) | (20,079) | (24,763) | (31,288) | 0 | 0 | 0 | 0 | 0 |
| | Number of loans maturing | 10,189 | 12,736 | 15,920 | 19,900 | 24,875 | 0 | 0 | 0 | 0 | 0 |
| | Number of borrowers (calculated) | 32% | 32% | 32% | 32% | 32% | 0% | 0% | 0% | 0% | 0% |
| | First loans as % of active loans | 4,760 | 5,891 | 7,427 | 9,215 | 11,603 | 0 | 0 | 0 | 0 | 0 |
| | Number of new clients during the period | 10,183 | 12,450 | 15,836 | 19,528 | 24,660 | 0 | 0 | 0 | 0 | 0 |
| Borrowers renewing | 2,722 | 3,344 | 4,243 | 5,235 | 6,628 | 0 | 0 | 0 | 0 | 0 | |
| Borrowers discontinuing this product | | | | | | | | | | | |

3.5 Enter assumptions on saving products

The Savings Sheet allows you to design and project any voluntary savings as well as to monitor the activity of any mandatory deposits. You can also calculate the cost of any interest you pay on the client savings and the fees you generate from depositors.

3.5.1 Depositors, average amount, and total deposits

The first section allows you to project, for each voluntary savings product, the number of depositors, the average balance of each depositor, and thus the total deposits generated.

| MV06 microvision PROJECTED SAVINGS PRODUCT ACTIVITY | | NAME OF INSTITUTION 0 | | | | | | REPORT IN |
|--|-------------------------|---|----------------|----------------|----------------|----------------|----------------|-----------|
| E01 Number of voluntary savings products | | 2 <input type="checkbox"/> Show Seasonality sheet | | | | | | |
| | | Year | Year | Year | Year | Year | Year | |
| | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | |
| E02 NUMBER OF DEPOSITORS | | | | | | | | |
| Growth rate (% or absolute) | | | | | | | | |
| 1 | Voluntary savings | | | 0.0% | 0.0% | 0.0% | 0.0% | |
| 2 | <Type name of product 2 | | | 0.0% | 0.0% | 0.0% | 0.0% | |
| Number of depositors | | | | | | | | |
| 1 | Voluntary savings | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | |
| 2 | <Type name of product 2 | | 0 | 0 | 0 | 0 | 0 | |
| Number of voluntary savers | | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | |
| Cross-check from MFI Factsheet | | 3,000 | OK | | | | | |
| Number of mandatory deposits | | 4,000 | 4,500 | 5,000 | 5,500 | 5,500 | 5,500 | |
| Total number of depositors | | 7,000 | 7,500 | 8,000 | 8,500 | 8,500 | 8,500 | |
| E03 Mandatory depositors as % of borrowers | | | 100% | 100% | 100% | 100% | 100% | |
| E04 AVERAGE BALANCE PER DEPOSITOR | | | | | | | | |
| Weighted average, voluntary deposits | | 167 | 173 | 180 | 187 | 195 | 203 | |
| 1 | Voluntary savings | 167 | 173 | 180 | 187 | 195 | 203 | |
| 2 | <Type name of product 2 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Mandatory deposits | | 43 | 6 | 7 | 7 | 8 | 8 | |
| E05 PROJECTION OF DEPOSITS | | | | | | | | |
| Total Voluntary Deposits | | 500,000 | 520,000 | 540,800 | 562,432 | 584,929 | 608,326 | |
| 1 | Voluntary savings | 500,000 | 520,000 | 540,800 | 562,432 | 584,929 | 608,326 | |
| 2 | <Type name of product 2 | | 0 | 0 | 0 | 0 | 0 | |
| Mandatory deposits | | 300,000 | 46,800 | 54,080 | 61,868 | 64,342 | 66,916 | |
| Loan product number 1: Business | | 300,000 | 46,800 | 54,080 | 61,868 | 64,342 | 66,916 | |
| E06 Total deposits | | 800,000 | 566,800 | 594,880 | 624,300 | 649,272 | 675,242 | |
| Total deposits 2018 (see MFI Factsheet Item Ref A18) | | 800,000 | OK | | | | | |
| Mandatory deposits as % of Gross Loan Portfolio | | 15% | 18% | 18% | 18% | 18% | 18% | |

Line E01- Number of voluntary savings products:

Microvision allows you to make projections for up to 4 voluntary savings products and one mandatory deposit account. By choosing the number of products from this dropdown list, the appropriate rows will be added and displayed throughout the software. If you have more than 4 savings products, you should group them by an approximate average deposit amount and interest rate paid, as those are the two most critical variables used in the calculations. Any loan products with mandatory deposits will have their figures calculated and displayed by-product on this sheet. The same interest rate will apply to all mandatory deposits.

Line E02- Number of depositors:

Exactly the same as in case of the loan products, savings calculations are driven by the number of depositors. In the input rows, enter a growth rate for the number of depositors in each voluntary savings product. Note that the number of mandatory savings depositors is calculated on the Loan Portfolio sheet.

Growth rates can be input as a % increase/decrease from the previous year's figure (enter as a number < 1.00, e.g., 0.02) or as a fixed amount of growth per year (enter as a figure > 1.00). Negative figures will be used as a reduction in the number of depositors, e.g., -3,000 or -0.05 (5%).

If you are introducing a new savings product that has 0 initial clients, you can enter an absolute number to indicate growth, let's say: 5,000 clients in the year it is introduced. In following years you can shift to a percentage growth, e.g., 30%.

NOTE: If any savings products express significant seasonality in demand (either in number of depositors or average deposit), you can use the optional Seasonality sheet in Microvision to input the seasonality pattern. You can display this sheet using the checkbox on the top of the Savings sheet. Note that any seasonality adjustments made in Microvision influence only the amount of interest paid on deposits (which will be calculated on a revised average monthly balance). Influences on monthly cash flow are not relevant for an annual projection model.

Note that if you have an extremely seasonal savings product, much information may be missing in the year-end balances and it might be difficult to model such a product in Microvision. For example, a Christmas savings product would have 0 balance on 1 Jan, would have savings increase gradually through the year, interest would be calculated on this increasing balance, but then the savings and interest would be distributed before 31 Dec. The annual Balance Sheet completely misses all of this activity; the interest payments are captured in the Income Statement.

Line E03- Mandatory depositors as % of borrowers:

This line shows the number of borrowers required to have mandatory deposits expressed as a percentage of total borrowers. If some loan products require deposits while others do not, this percentage will change as the composition of the total portfolio changes or as the per-product requirements change.

Line E04- Average balance per depositor:

This is the second of the two inputs used to project savings deposits. This entry is an actual figure, not a growth rate. The pre-loaded formula here increases the previous year's average balance by the inflation rate.

You are to input the average balance per depositor held at the end of the fiscal year. It may be that deposits have a seasonality, e.g., an education loan would be withdrawn at the start of the school year. You can use the optional Seasonality sheet in Microvision to input the seasonality pattern.

Line E05- Projection of deposits:

For voluntary savings products, the projection of total deposits is simply the number of depositors multiplied by the average deposit amount at the end of the year. This gives you the end-of-year figures for your projections and financial statements. In order to ensure that the total for all savings products exactly matches the figure entered on the MFI Factsheet, Product 1 has the remaining balance already calculated.

Line E06- Total deposits:

The sum of all mandatory and all voluntary savings. This needs to balance in Year 0 with the figure entered in the MFI Factsheet. As the MFI Factsheet does not have a breakdown by-product, you need to input the information necessary to calculate that breakdown, i.e., the number of depositors for each product and the average balance per depositor for each product.

3.5.2 Financial costs and fee income of savings

Once savings amounts are projected, you can now calculate the financial costs of those funds as well as possible income generated by fees paid by depositors.

| | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | 5 Yr Total | |
|------------|---|---------------|---------------|---------------|---------------|---------------|---------------|--|
| E07 | INTEREST RATE PER DEPOSIT PRODUCT | | | | | | | |
| 1 | Voluntary savings | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | |
| 2 | <Type name of product 2 | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| | Mandatory deposits | 2.5% | 2.5% | 2.5% | 2.5% | 2.5% | 2.5% | |
| | Average interest rate paid on voluntary deposits | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | |
| E08 | CORRECTION FACTOR FOR INTEREST PAID ON CLIENT DEPOSITS | | | | | | | |
| 1 | Voluntary savings | 100% | 100% | 100% | 100% | 100% | 100% | |
| 2 | <Type name of product 2 | 100% | 100% | 100% | 100% | 100% | 100% | |
| | Mandatory deposits | 100% | 100% | 100% | 100% | 100% | 100% | |
| E09 | INTEREST PAID ON CLIENT DEPOSITS | | | | | | | |
| 1 | Voluntary savings | 15,000 | 15,305 | 15,917 | 16,554 | 17,216 | 17,904 | |
| 2 | <Type name of product 2 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Mandatory deposits | 7,500 | 0 | 0 | 0 | 0 | 0 | |
| E10 | Total interest paid on deposits | 22,500 | 15,305 | 15,917 | 16,554 | 17,216 | 17,904 | |
| | Interest paid on deposits (see MFI Factsheet item ref 809) | 22,500.00 | OK | | | | | |
| E11 | FEES EARNED ON DEPOSITS (AMOUNT PER DEPOSIT ACCOUNT) | | | | | | | |
| 1 | Voluntary savings | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | |
| 2 | <Type name of product 2 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | Mandatory deposits | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | Total fees earned on deposits | 18,000 | 18,000 | 18,000 | 18,000 | 18,000 | 90,000 | |

Line E07- Interest rate per deposit product:

The interest rate that MFI applies to pay the depositors for each product. Note that the average interest rate shown is a nominal average, not a weighted average.

Line E08- Correction factor for interest paid on client deposits:

The total interest actually paid will be adjusted by this factor. This correction can be useful when for instance interest is only paid on deposits held in the account for the entire year. In that case, if 20% of the deposits are withdrawn early, an entry of 80% will indicate that total interest expense to the MFI has reduced by 20%.

Line E09- Interest paid on client deposits:

The interest paid on client savings is calculated as the average savings balances during the year (E05) multiplied by the interest rate for the product (E07) and multiplied by the correction factor for interest effectively paid on client savings (E08). The total calculated in Year 0 needs to balance approximately with the aggregate figure input in the MFI Factsheet.

Line E10- Total interest paid on deposits:

Interest paid on client savings (amount) is calculated as the average savings balances during the year multiplied by the interest rate and multiplied by the correction factor for interests effectively paid on client savings.

Line E11- Fees earned on deposits (amount per deposit account):

It may be that depositors are required to pay a monthly or annual fee in order to have a savings account. If so, that income is generated in this section by inputting the fee per year per account in the input lines. The totals line then multiplies these fees by the number of depositors for each product.

3.5.3 Calculation of reserves and of total clients

This section has a brief calculation for how to manage the client deposits and then a longer section to determine statistical information on savers, borrowers, and clients for display in the MFI Factsheet.

| | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 |
|------------|--|--------------|--------------|--------------|--------------|--------------|
| E12 | DEPOSITS HELD IN RESERVE, NOT CONVERTED IN LOANS OR USED FOR EXPENSES | | | | | |
| | % of client deposits held as investments in reserve | 0% | 0% | 0% | 0% | 0% |
| | Total client deposits held as investments in reserve | 0 | 0 | 0 | 0 | 0 |
| | DETERMINATION OF TOTAL ACTIVE CLIENTS AND MEMBERS | | | | | |
| | Number of voluntary savers | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| E13 | % voluntary depositors (without active loan) | 33% | 33% | 33% | 33% | 33% |
| | Voluntary depositors (without active loan) | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| | % of those who are female | 50% | 50% | 50% | 50% | 50% |
| | % of those who are rural | 50% | 50% | 50% | 50% | 50% |
| | Number of clients with active loans | 4,000 | 4,500 | 5,000 | 5,500 | 5,500 |
| E14 | % of borrowers with multiple active loans | | | | | |
| | Number of active clients | 5,000 | 5,500 | 6,000 | 6,500 | 6,500 |
| E15 | Growth of the number of members (coops only) | | 10% | 9% | 8% | 0% |
| | Number of members (coops only) | 5,000 | 5,500 | 6,000 | 6,500 | 6,500 |
| E16 | Consistency of data : Clients = borrowers and/or savers | OK | OK | OK | OK | OK |

Line E12- Deposits held in reserve, not converted in loans or used for expenses:

Reserves are necessary and often legally required, for safety and security reasons and for ability to respond to client requests for withdrawals. Enter here the percentage of the total savings deposits that must be put in reserve. These will show up on the Balance Sheet as short-term investments. The balance will then be available for any possible use – loan funds, expenses, investments, etc.

Line E13- % voluntary depositors (without active loan):

In order to get an accurate count of total clients, we have to avoid double-counting clients that have multiple products. In this line, enter an estimate of the number of voluntary depositors who do not have an active loan. The percentage for Year 0 is already calculated using the figures for borrowers and clients entered in the MFI Factsheet.

In addition, the MFI Factsheet tracks both borrowers and clients by gender and rural/urban location. Borrower statistics are calculated elsewhere, so the only missing information is to identify depositors-only by these two characteristics. The Year 0 column shows the calculation of what the depositors-only composition was based on the MFI Factsheet data. This percentage is then assumed to continue forward, but you can modify the percentage based on your expectations. This will then help to generate the overall client figures shown on the Projected MFI Factsheet.

Line E14- % of borrowers with multiple active loans:

In order to compare borrowers with total clients, we need to adjust for the possibility that some clients have more than one loan. Enter a percentage figure here to reduce the total borrowers. E.g., if there are 10,000 borrowers, but 10% of them have more than one loan, then you will show 9,000 total borrowers.

Line E15- Growth of the number of members (coops only):

Members are registered members in a cooperative. Banks or associations can quote the total number of clients for all services included. The default formula follows the growth trend of the active clients.

Line E16- Consistency of data : Clients = borrowers and/or savers:

The number of active clients is defined as individuals who are either active borrowers, active depositors, or both. An error appears on this line if the numbers entered are inconsistent. It may be that the percentage figure entered for voluntary savers without loans is too small, resulting in a calculation of "Savers with Loans" being larger than the actual number of borrowers. Confirm the percentage figure and consider entering a larger percentage.

3.6 Enter assumptions on seasonality (optional)

The Seasonality sheet option allows you to input any repetitive annual seasonality pattern for any or all savings and loan products. It is very important to understand that in an annual projection model, the only impact of seasonality is to adjust either the amount of interest and fees generated by loan products or the amount of interest paid on savings deposits.

The default calculations in Microvision assume straight-line changes between the beginning- and end-of-year figures for all products. For loan products, Microvision does monthly calculations of interest generated based on this even growth (or decline) in portfolio. For savings products, Microvision bases interest costs on the average balance using the beginning and end figures.

If a product has extreme variation, it can be worthwhile to use the Seasonality sheet to input the seasonality for that product and leave other products as is. Following is some guidance for how to do so.

3.6.1 Loan product seasonality

| NAME OF INSTITUTION | | REPORT IN MAD 1 | | | | | | | | | | | | TOTAL |
|--|---|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|-------------------|
| PLEASE FILL IN ALL YELLOW-COLOURED CELLS | | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 | Month 7 | Month 8 | Month 9 | Month 10 | Month 11 | Month 12 | CONTROL: Total=0% |
| T01 | PLANNED MONTHLY SEASONALITY IN LOAN DEMAND IN 2019 - 2023 (Zero means average demand) | | 30% | 40% | | | | | (20%) | (20%) | (30%) | | | 0.0% OK |
| T02 | PROJECTED NUMBER OF BORROWERS FOR PRODUCT 1: Business | | | | | | | | | | | | | |
| | Loan product 1: Business, Year 2019 | 4,042 | 4,096 | 4,154 | 4,196 | 4,238 | 4,279 | 4,321 | 4,354 | 4,388 | 4,417 | 4,458 | 4,500 | |
| | Loan product 1: Business, Year 2020 | 4,542 | 4,596 | 4,654 | 4,696 | 4,738 | 4,779 | 4,821 | 4,854 | 4,888 | 4,917 | 4,958 | 5,000 | |

Line T01- Planned monthly seasonality in loan demand in:

This section allows you to introduce a systematic monthly seasonality to the number of borrowers for one or more products. This monthly seasonality will be repeated each year for the five-year projection. In an annual projection tool, the only impact of this seasonality will be to get a more precise calculation of income generated from interest and fees, as these calculations are done on the monthly basis on the Loan Detail sheet.

To input seasonality, enter the percentage difference from "average demand". E.g., 10% means this month has 10% more demand than average and -20% means 20% less. For the 12 months, the differences should zero out, e.g., 3 months of 10% and 1 month of -30%.

In the extreme case, where all loans are disbursed in a single month, enter 1100% in the month of disbursement and -100% in all other months. This totals to 0%.

Line T02- Projected number of borrowers for product:

This section shows the monthly projection of number of active borrowers for each year, displaying the figures for the last loan product for which calculations were generated. To see figures for a different loan product, make a change for any figure in the row for that product.

3.6.2 Savings product seasonality

| | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 | Month 7 | Month 8 | Month 9 | Month 10 | Month 11 | Month 12 | TOTAL |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|
| T03 Seasonality in savings deposits 2019 - 2023 | | | | | | | | | | | | | |
| Voluntary savings | | 20% | 20% | 20% | | | | | | | (30%) | (30%) | 0.0% OK |
| T04 PROJECTION OF DEPOSITS | 1,020,833 | 1,045,833 | 1,070,833 | 1,095,833 | 1,116,667 | 1,137,500 | 1,158,333 | 1,179,167 | 1,200,000 | 1,220,833 | 1,235,417 | 1,250,000 | Correction factor |
| Voluntary savings, Year 2019 | 1,020,833 | 1,045,833 | 1,070,833 | 1,095,833 | 1,116,667 | 1,137,500 | 1,158,333 | 1,179,167 | 1,200,000 | 1,220,833 | 1,235,417 | 1,250,000 | 1.007 OK |

Line T03- Seasonality in savings deposits:

This section allows you to introduce a systematic monthly seasonality to the savings balance for one or more savings products. This monthly seasonality will be repeated each year for the five-year projection. In an annual projection tool, the only impact of this seasonality will be to get a more precise calculation of the cost paid for interest on savings. If this is a minimal figure in your financial statements, it is recommended not to put time into this seasonality section.

Note that for savings products, seasonality is not based on the number of depositors or the average balance, but rather the total savings mobilized, which is the combination of the two factors. Therefore, you will need to think about how seasonality in one or both of those factors affects the total deposits.

To input seasonality, enter the percentage difference from "average demand". E.g. 10% means this month has 10% more demand than average and -20% means 20% less. For the 12 months, the differences should zero out, e.g., 3 months of 10% and 1 month of -30%.

In the extreme case, where all savings are deposited in a single month, enter 1100% in the month of disbursement and -100% in all other months. This totals to 0%.

And now for the tricky part! To have savings decrease, you will need to enter a negative figure larger than -100%. Try a few examples, and you will see the influence it has on the figures shown in Line T05. If you put in too large of a negative number, you will actually get a negative savings balance, which is impossible and will be flagged as an error in Line T05, as shown in the figure below:

| | Month 10 | Month 11 | Month 12 | TOTAL | Print |
|--|-----------|----------|----------|-------------------|---|
| T03 Seasonality in savings deposits 2019 - 2023 | | | | | |
| Voluntary savings | | | | -6300.0% Error | |
| T04 PROJECTION OF DEPOSITS | (104,167) | (83,333) | (62,500) | Correction factor | |
| Voluntary savings, Year 2019 | (104,167) | (83,333) | (62,500) | 0.282 Error | Error: the seasonality figures you entered result in at least one month with negative savings |

Line T04- Index of monthly deposits balance - 100% = balance as per 1st Jan:

The index default is a base rate of 100% of the projected linear monthly change in the deposit balance. The seasonality figure entered in Line T03 is added to it. If 20% is entered, the index will be 120%. If -100% is entered, the savings balance will have zero growth. For a figure in excess of -100%, this will give a negative index of monthly deposits balance and the savings balance will decrease in Line T05.

Line T05- Projection of deposits:

All that work you did in Section T03 now shows you the projected monthly savings balances in Year 1. What does Microvision do with those monthly balances? To the far-right is a column titled "Adjust Factor". Here is a formula that compares the average monthly balance with seasonality to the average monthly balance if there was a linear growth. If seasonality results in higher balances for more months, the adjustment factor will be greater than 1; otherwise it will be less than one. Microvision adjusts then the interest paid on savings by using this adjustment factor. The more interest your MFI pays, the more this process is worth doing. In the earlier screenshot, savings balances were low in the middle of the year and then increased in the last months. The average balance was then just 0.674 of the straight-line average balance, and interest costs would be lower. In the first example given in this section, savings balances are higher than average in the middle of the year, resulting in a higher average balance than expected, giving a correction factor of 1.007.

3.7 Enter assumptions on staff

Staffing is generally the biggest expense in microfinance, and the Staff sheet will help us to project staff levels and costs over the projected period. The flow of the Staff sheet starts with information that will influence the calculations further down on the sheet. We start with a projection of the number of branch offices and a review of the number of loan officers that was generated on the Loan Portfolio sheet. We then project management and non-management staff levels and have some indicators to help us interpret the future levels. We then input salaries and bonus information, review total staffing costs and then end up with corresponding social performance indicators.

3.7.1 Branches and loan officers

| | Hide details | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 |
|------------|---|--------------|--------------|--------------|--------------|--------------|--------------|
| M01 | PROJECTION OF NUMBER OF BRANCHES | | | | | | |
| | Number of active borrowers | 4,000 | 6,000 | 7,500 | 9,000 | 9,000 | 9,000 |
| | Number of branches | 4 | 4 | 4 | 4 | 4 | 4 |
| | Number borrowers per branch office | 1,000 | 1,500 | 1,875 | 2,250 | 2,250 | 2,250 |
| M02 | NUMBER OF LOAN OFFICERS | | | | | | |
| | Number of loan officers | 14.0 | 21.0 | 26.2 | 31.5 | 31.5 | 31.5 |
| | Average caseload (borrowers / Loan officer) | 286 | 286 | 286 | 286 | 286 | 286 |
| M03 | Caseload adjustment factor | | | 0.0% | 0.0% | 0.0% | 0.0% |
| | Calculated nr. of borrowers/Loan officer | 286 | 286 | 286 | 286 | 286 | 286 |
| | Nr. of loan officers after efficiency improvement | 14.0 | 21.0 | 26.2 | 31.5 | 31.5 | 31.5 |
| | Loan officers as % of total staff | 50% | 60% | 65% | 69% | 69% | 69% |
| | Loan officers per branch office | 3.5 | 5.2 | 6.6 | 7.9 | 7.9 | 7.9 |

Line M01- Projection of number of branches:

Change in scale of operations often means a change in the number of branch offices. This figure is a driving factor for a number of staffing categories, so we ask you to input this estimate first.

Line M02- Number of loan officers:

Loan officers are generally the largest staff category. Their work is correlated to the number of borrowers that they manage, i.e., their "case load". The projected number of loan officers was calculated on Line P20 on the Loan Portfolio sheet.

The average caseload is a simple calculation of borrowers divided by loan officers and represents the weighted caseload of all the loan products.

Two useful indicators are provided – loan officers as % of total staff and loan officers per branch office – to allow you to interpret the numbers you are generating.

Line M03- Caseload adjustment factor:

To introduce efficiencies, you could go back to Line P19 for each product on the Loan Portfolio sheet and change the caseload. However, this line allows a quick, global efficiency rate to be entered. If you use this option, the number of loan officers will be recalculated and used further below. This line is also available on the Strategy sheet to be used for experimentation.

3.7.2 Staffing requirements

The staff requirements section is divided into ten input lines: 5 in the group of "management staff" and 5 in "non-management staff". One of these lines is reserved for the loan officers, but the other lines, while pre-filled with default job titles, can be edited to your preference.

Your first task is to fill in the Year 0 column so that total staff matches the figure input in the MFI Factsheet. There is a default formula linking branch managers to the number of branch offices, but you may overwrite this if you need to.

The next step is to review the projections of staff at each position. Most growth generally takes place with non-management staff. There are two indicators to help you assess the figures you are generating - management staff as % of total staff and loan officers as % of non-management staff.

| | | Show details | | Year | Year | Year | Year | Year | Year |
|------------|--|--------------|--|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| M04 | STAFF REQUIREMENTS | | | | | | | | |
| | Number of management staff | | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| | Total mgmt staff from the MFI Factsheet, Row C42 | | | 12.0 | OK | | | | |
| 1 | Management team (CEO, COO, CFO) | | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 2 | 2nd level mgmt (HRM, etc., including ICT) | | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 3 | Accountants and internal auditor | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 4 | Branch manager | | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| 5 | Other management staff | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | Number of non-management staff | | | 29.0 | 36.0 | 41.3 | 46.5 | 46.5 | 46.5 |
| 6 | Loan officer | | | 14.0 | 21.0 | 26.3 | 31.5 | 31.5 | 31.5 |
| 7 | Cashiers | | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| 8 | Secretariat and administrative staff | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 9 | Trained support staff (drivers, etc.) | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 10 | Security & other support staff | | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| | Total staff | | | 41.0 | 48.0 | 53.3 | 58.5 | 58.5 | 58.5 |
| | Total staff imported from the MFI Factsheet, Row C37 | | | 41.0 | OK | | | | |
| | Management staff as % of total staff | | | 29% | 25% | 23% | 21% | 21% | 21% |
| | Loan officers as % of non-management staff | | | 48% | 58% | 64% | 68% | 68% | 68% |

3.7.3 Salaries and bonus payments

We next calculate the total costs of the staffing levels we have projected. Microvision asks you to enter monthly figures, which are converted to annual totals further below. It is important to understand that the figure entered here must be the total monthly cost of a staff person, including salary, benefits, and taxes. The only item to be determined separately is any bonus. Bonuses, as well as the checkboxes to the right, are explained in section M08 below.

Start by filling in the Year 0 column. Further below, in M09, you will need to determine if the total salary cost reflects what is shown in the MFI Factsheet.

Salary levels projected forward have a default formula that increases them by inflation. Global salary adjustments can be found in M06 and M07, hidden in the Details section. Otherwise, you can edit any of the staffing lines to adjust salaries as you wish.

You may also provide bonuses to some or all staff. For an explanation of the checkboxes to the right, see line M08.

| | | Show details | | | | | | Print |
|-----|--|---------------------------------------|-----------|-----------|-----------|-----------|-----------|---|
| | | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | |
| M05 | SALARY COST PER STAFF MEMBER PER MONTH | | | | | | | |
| | Inflation correction | | 4.2% | 4.2% | 4.2% | 4.2% | 4.2% | |
| M06 | Application of inflation correction | | 100% | 100% | 100% | 100% | 100% | |
| M07 | Annual salary change index (excl. inflation) | | 100% | 100% | 100% | 100% | 100% | |
| 1 | Management team (CEO, COO, CFO) | 800 | 834 | 869 | 906 | 944 | 984 | <input type="checkbox"/> Receives bonus? |
| 2 | 2nd level mgmt (HRM, etc., including ICT) | 700 | 730 | 760 | 792 | 826 | 861 | <input type="checkbox"/> Receives bonus? |
| 3 | Accountants and internal auditor | 650 | 677 | 706 | 736 | 767 | 799 | <input type="checkbox"/> Receives bonus? |
| 4 | Branch manager | 550 | 573 | 597 | 623 | 649 | 676 | <input type="checkbox"/> Receives bonus? |
| 5 | Other management staff | 500 | 521 | 543 | 566 | 590 | 615 | <input type="checkbox"/> Receives bonus? |
| 6 | Loan officer | 400 | 417 | 434 | 453 | 472 | 492 | <input checked="" type="checkbox"/> Receives bonus? |
| 7 | Cashiers | 250 | 261 | 272 | 283 | 295 | 307 | <input type="checkbox"/> Receives bonus? |
| 8 | Secretariat and administrative staff | 200 | 208 | 217 | 226 | 236 | 246 | <input type="checkbox"/> Receives bonus? |
| 9 | Trained support staff (drivers, etc.) | 200 | 208 | 217 | 226 | 236 | 246 | <input type="checkbox"/> Receives bonus? |
| 10 | Security & other support staff | 175 | 182 | 190 | 198 | 206 | 215 | <input type="checkbox"/> Receives bonus? |
| M08 | BONUS PAYMENTS PER YEAR | | | | | | | |
| | Bonus calculation method | As percent of interest and fee income | | | | | | |
| | Interest and fee income from loan portfolio | 600,000 | 856,753 | 1,561,912 | 1,901,566 | 2,143,056 | 2,303,612 | |
| | Average bonus % | 13.33% | 13.33% | 13.33% | 13.33% | 13.33% | 13.33% | |
| | Bonus payments per year | 80,000 | 114,234 | 208,255 | 253,542 | 285,741 | 307,148 | |
| | Average monthly payment of bonus to a staff member | | 529 | 868 | 960 | 1,082 | 1,163 | |

Line M06- Application of inflation correction:

This line allows you to adjust salaries at different rates relative to inflation. Assuming inflation of 5%, 100% will increase salaries 5% exactly by inflation. 150% will increase salaries by 7.5%. 50% will increase salaries by 2.5%.

Line M07- Annual salary change index (excl. inflation):

This line allows a second global index for staff salaries, independent from inflation.

- 100% will leave salaries unchanged
- 102% will provide staff with a raise of 2%. If combined with 100% on line M06, staff will get a raise of 2% above inflation
- 99% will drop salaries by 1%.

Line M08- Bonus payments per year:

You may provide bonuses to some or all staff. To identify these staff, put an "x" in the yellow boxes to the right in section M05 above. Choose one of the two options for calculating bonuses using the dropdown.

With the first option, the amount of the bonus is calculated as a percentage of interest collected.

The second option calculates the bonus as a percentage of the base salary for each position receiving bonuses (if you select this option, be sure that the figure entered in the section above does not already include the average bonus). See the screenshot below that shows how the lines in the section change when the second option is selected.

The total bonus paid out is shown at the end of section M09. Bonus amounts per staff position are not provided.

| | | Show details | | | | | |
|-----|--|---------------------------|-----------|-----------|-----------|-----------|-----------|
| | | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 |
| M08 | BONUS PAYMENTS PER YEAR | | | | | | |
| | Bonus calculation method | As percent of base salary | | | | | |
| | Interest and fee income from loan portfolio | 600,000 | 856,753 | 1,561,912 | 1,901,566 | 2,143,056 | 2,303,612 |
| | Total base salary of employees receiving bonuses | 67,200 | 78,790 | 91,239 | 104,598 | 109,012 | 113,613 |
| | Average bonus % | 37.20% | 37.20% | 37.20% | 37.20% | 37.20% | 37.20% |
| | Bonus payments per year | 25,000 | 29,312 | 33,943 | 38,913 | 40,555 | 42,267 |
| | Average monthly payment of bonus to a staff member | | 155 | 162 | 168 | 176 | 183 |

| | | Show details | | | | | | Print |
|------------|--|----------------|----------------|----------------|----------------|----------------|----------------|-------|
| | | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | |
| M09 | ANNUAL SALARY COST | | | | | | | |
| 1 | Management team (CEO, COO, CFO) | 19,200 | 19,968 | 20,767 | 21,597 | 22,461 | 23,360 | |
| 2 | 2nd level mgmt (HRM, etc., including ICT) | 16,800 | 17,472 | 18,171 | 18,898 | 19,654 | 20,440 | |
| 3 | Accountants and internal auditor | 23,400 | 24,336 | 25,309 | 26,322 | 27,375 | 28,470 | |
| 4 | Branch manager | 26,400 | 27,456 | 28,554 | 29,696 | 30,884 | 32,120 | |
| 5 | Other management staff | 6,000 | 6,240 | 6,490 | 6,749 | 7,019 | 7,300 | |
| 6 | Loan officer | 67,200 | 104,832 | 136,282 | 170,079 | 176,883 | 183,958 | |
| 7 | Cashiers | 12,000 | 12,480 | 12,979 | 13,498 | 14,038 | 14,600 | |
| 8 | Secretariat and administrative staff | 7,200 | 7,488 | 7,788 | 8,099 | 8,423 | 8,760 | |
| 9 | Trained support staff (drivers, etc.) | 7,200 | 7,488 | 7,788 | 8,099 | 8,423 | 8,760 | |
| 10 | Security & other support staff | 10,500 | 10,920 | 11,357 | 11,811 | 12,284 | 12,775 | |
| | Bonus payments per year | 8,000 | 32,423 | 15,287 | 19,267 | 20,996 | 21,836 | |
| | Total salaries | 203,900 | 271,103 | 290,771 | 334,116 | 348,440 | 362,377 | |
| | Total salaries on income statement base year | 205,000 | OK | | | | | |
| | Staff cost as % of avg GLP | 20.4% | 27.5% | 69.1% | 62.9% | 59.8% | 59.8% | |

Check this box if y

Line M09- Annual salary cost:

This is an output section, showing the results of all the earlier entries. Total salary cost in Year 0 should represent approximately the figure drawn from the MFI Factsheet. Adjust your earlier entries if needed. If any significant difference remains but is justifiable and the monthly figures are realistic, check the yellow box off to the right to remove the error message.

3.7.4 Staffing statistics

This final section allows you to indicate staff gender levels and staff retention projections.

| | | Show details | | | | | |
|------------|---|--------------|-----------|-----------|-----------|-----------|-----------|
| | | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 |
| | NUMBER OF STAFF | | | | | | |
| M10 | Number of total staff | 41 | 48 | 53 | 59 | 59 | 59 |
| | Male | 22 | 26 | 28 | 32 | 32 | 32 |
| | Female | 19 | 22 | 25 | 27 | 27 | 27 |
| | Percent of total staff who are female | 46% | 46% | 46% | 46% | 46% | 46% |
| | Number of borrowers per staff member | 98 | 125 | 141 | 154 | 154 | 154 |
| M11 | Number of management staff | 12 | 12 | 12 | 12 | 12 | 12 |
| | Male | 7 | 7 | 7 | 7 | 7 | 7 |
| | Female | 5 | 5 | 5 | 5 | 5 | 5 |
| | Percent of management staff who are female | 42% | 42% | 42% | 42% | 42% | 42% |
| M12 | Staff retention | | | | | | |
| | Number of total staff employed for one year or more | 33 | 39 | 45 | 50 | 50 | 50 |
| | Percent of staff employed more than one year | 80% | 80% | 85% | 85% | 85% | 85% |
| | Number of exits of staff during the period | 9 | 11 | 11 | 12 | 12 | 12 |
| | Percent of staff exiting during year | 22% | 22% | 20% | 20% | 20% | 20% |

Line M10- Number of total staff:

This section shows the total number of staff and the % female staff as reported in the MFI Factsheet for Year 0. You can adjust this figure in future years to reflect your plan.

Line M11- Number of management staff:

This section shows the total number of management staff and the % female management as reported in the MFI Factsheet for Year 0. You can adjust this figure in future years to reflect your plan.

Line M12- Staff retention:

This section shows the Year 0 MFI Factsheet indicators for staff retention. You can adjust these figures to reflect your plan.

3.8 Enter assumptions on Other Costs

The Other Costs sheet provides projections of operational costs other than personnel. Microvision allows you to project Other Costs by three different methods. The choice is made on Q01 and determines which lines are displayed on the remainder of the worksheet. This section will explain each of the three approaches and advise on how to choose which approach to use.

Line Q01 – Level of detail for administrative expenses

There are three choices available. First, you may simply input all expenses by category using the 10 input lines. The default formula increases expenses by inflation only, so you will need to determine how to project expenses for growth in scale.

Second, you may separate expenses between head office and branch office levels. As you plan for growth, most growth will likely take place in the branch office section.

Third, you have the option to input expenses for a "typical branch office". You then input how many branches you have of different scales. Microvision will then project total branch expenses using this information. This is the most accurate way to project future expenses if you are going to see significant changes in scale of activity. If your institution is reasonably stable in size, the other two methods may work satisfactorily.

3.8.1 Option 1 : Projecting other costs with comprehensive administrative expenses

The screenshot below shows the first option, inputting comprehensive administrative expenses.

| MV03 microvision PROJECTED OTHER EXPENSES | | NAME OF INSTITUTION | | REPORT IN | | | | |
|---|--|--|----------------|----------------|------------------|------------------|------------------|------------------|
| | | 0 | | 1 EUR | | | | |
| | | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | Year 2024 | 5 Yr Total |
| | OPERATING EXPENSES | | | | | | | |
| Q01 | Level of details for admin. Expenses | 1. Input comprehensive administrative expenses in line | | | | | | |
| Q02 | Administrative expenses | | | | | | | |
| 1 | Rent | 40 000 | 41 560 | 43 181 | 44 865 | 46 615 | 48 433 | 224 653 |
| 2 | Utilities | 25 000 | 25 975 | 26 988 | 28 041 | 29 134 | 30 270 | 140 408 |
| 3 | Communications and internet | 30 000 | 31 170 | 32 386 | 33 649 | 34 961 | 36 324 | 168 490 |
| 4 | Transportation | 51 000 | 52 989 | 55 056 | 57 203 | 59 434 | 61 752 | 286 433 |
| 5 | Repairs, maintenance, insurance | 20 000 | 20 780 | 21 590 | 22 432 | 23 307 | 24 216 | 112 326 |
| 6 | Training expenses for staff and clients | 10 000 | 10 390 | 10 795 | 11 216 | 11 654 | 12 108 | 56 163 |
| 7 | Professional fees and consultants | 20 000 | 20 780 | 21 590 | 22 432 | 23 307 | 24 216 | 112 326 |
| 8 | Board exp | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| 9 | External audit | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| # | Other administrative expenses | 47 000 | 48 833 | 50 737 | 52 716 | 54 772 | 56 908 | 263 967 |
| | Administrative expenses | 253 000 | 262 867 | 273 119 | 283 770 | 294 837 | 306 336 | 1 420 930 |
| Q06 | Depreciation of fixed assets (see Fixed Investments) | 100 000 | 200 000 | 450 000 | 725 000 | 1 025 000 | 1 150 000 | 3 550 000 |
| | Total administrative expenses | 353 000 | 462 867 | 723 119 | 1 008 770 | 1 319 837 | 1 456 336 | 4 970 930 |
| | Total admin expenses imported from MFI Fac | 355 000 | OK | | | | | |
| | Personnel expenses (see Staff) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total operating expenses | 353 000 | 462 867 | 723 119 | 1 008 770 | 1 319 837 | 1 456 336 | 4 970 930 |

Line Q02 - Administrative expenses

The lines in this section are prefilled with default descriptions, but you may change the titles as you wish.

Fill in the Year 0 figures until they match the figure entered in the MFI Factsheet.

Note that the prefilled formulas project changes in the Year 0 figures based on the inflation rate. You will need to manually plan for any real changes in expenses.

Line Q06 – Depreciation of fixed assets (see Fixed Investments)

Total of depreciation each year on all categories of fixed assets.

3.8.2 Option 2 : Projecting other costs with separate head office and branch-level administrative expenses

The second option you have is to separate out head office and branch-level expenses, as shown in the screenshot below. Head office expenses will generally grow more slowly than branch office expenses if your institution is adding new branches.

| MV09 microvision PROJECTED OTHER EXPENSES | | | | | | | | |
|---|--|--|----------------|----------------|------------------|------------------|------------------|------------------|
| NAME OF INSTITUTION | | 0 | | | | | | REPORT IN 1 EUR |
| | | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | Year 2024 | 5 Yr Total |
| OPERATING EXPENSES | | | | | | | | |
| Q01 | Level of details for admin. Expenses | 2. Separate head office and branch-level administrative expenses | | | | | | |
| Q02 | Administrative expenses | | | | | | | |
| | Administrative expenses, head office | | | | | | | |
| 1 | Rent | 20 000 | 20 780 | 21 590 | 22 432 | 23 307 | 24 216 | 112 326 |
| 2 | Utilities | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| 3 | Communications and internet | 8 000 | 8 312 | 8 636 | 8 973 | 9 323 | 9 687 | 44 931 |
| 4 | Transportation | | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Repairs, maintenance, insurance | 20 000 | 20 780 | 21 590 | 22 432 | 23 307 | 24 216 | 112 326 |
| 6 | Training expenses for staff | 10 000 | 10 390 | 10 795 | 11 216 | 11 654 | 12 108 | 56 163 |
| 7 | Professional fees and consultants | 20 000 | 20 780 | 21 590 | 22 432 | 23 307 | 24 216 | 112 326 |
| 8 | Board exp | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| 9 | External audit | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| # | Other administrative expenses | 47 000 | 48 833 | 50 737 | 52 716 | 54 772 | 56 908 | 263 967 |
| | Administrative expenses, head office | 140 000 | 145 460 | 151 133 | 157 027 | 163 151 | 169 514 | 786 285 |
| Q03 | Administrative expenses, branch offices | | | | | | | |
| 1 | Rent | 40 000 | 41 560 | 43 181 | 44 865 | 46 615 | 48 433 | 224 653 |
| 2 | Utilities | 18 000 | 18 702 | 19 431 | 20 189 | 20 977 | 21 795 | 101 094 |
| 3 | Communications and internet | 10 000 | 10 390 | 10 795 | 11 216 | 11 654 | 12 108 | 56 163 |
| 4 | Transportation | 20 000 | 20 780 | 21 590 | 22 432 | 23 307 | 24 216 | 112 326 |
| 5 | Repairs, maintenance, insurance | 10 000 | 10 390 | 10 795 | 11 216 | 11 654 | 12 108 | 56 163 |
| 6 | Training expenses for clients | 8 000 | 8 312 | 8 636 | 8 973 | 9 323 | 9 687 | 44 931 |
| 7 | Other administrative expenses | 500 | 520 | 540 | 561 | 583 | 605 | 2 808 |
| | Administrative expenses, branch offices | 106 500 | 110 654 | 114 969 | 119 453 | 124 111 | 128 952 | 598 138 |
| | Administrative expenses, branch offices | 106 500 | 110 654 | 114 969 | 119 453 | 124 111 | 128 952 | 598 138 |
| Q06 | Depreciation of fixed assets (see Fixed Investments) | 100 000 | 200 000 | 450 000 | 725 000 | 1 025 000 | 1 150 000 | 3 550 000 |
| | Total administrative expenses | 346 500 | 456 114 | 716 102 | 1 001 480 | 1 312 263 | 1 448 466 | 4 934 424 |
| | Total admin expenses imported from MFI Factsheet | 355 000 | OK | | | | | |
| | Personnel expenses (see Staff) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total operating expenses | 346 500 | 456 114 | 716 102 | 1 001 480 | 1 312 263 | 1 448 466 | 4 934 424 |

Line Q03 – Administrative expenses, branch offices , or single typical branch office

If you have chosen to enter branch-level expense data, you may do so in this section. You have the option to change the default names of the expense categories.

3.8.3 Options 3: Projecting other costs with individual branch-level administrative expenses

The third option provides a great deal of control to project administrative expenses in an institution anticipating moderate to significant changes in scale (both growth and decline). In this third option, the middle section is for you to input expenses of a typical branch office, likely the branch scale that is most common in your institution.

The bottom section then allows you to project the number of branch office for up to 5 different scales of expenses.

| MVO9 microvision PROJECTED OTHER EXPENSES | | NAME OF INSTITUTION | | 0 | | REPORT IN 1 EUR | | |
|---|--|--|----------------|----------------|------------------|------------------|------------------|------------------|
| | | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | Year 2024 | 5 Yr Total |
| OPERATING EXPENSES | | | | | | | | |
| Q01 | Level of details for admin. Expenses | 3. Project individual branch-level administrative expenses | | | | | | |
| Q02 | Administrative expenses | | | | | | | |
| | Administrative expenses, head office | | | | | | | |
| 1 | Rent | 12 000 | 12 468 | 12 954 | 13 459 | 13 984 | 14 530 | 67 396 |
| 2 | Utilities | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| 3 | Communications and internet | 8 000 | 8 312 | 8 636 | 8 973 | 9 323 | 9 687 | 44 931 |
| 4 | Transportation | | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Repairs, maintenance, insurance | 20 000 | 20 780 | 21 590 | 22 432 | 23 307 | 24 216 | 112 326 |
| 6 | Training expenses for staff | 10 000 | 10 390 | 10 795 | 11 216 | 11 654 | 12 108 | 56 163 |
| 7 | Professional fees and consultants | 20 000 | 20 780 | 21 590 | 22 432 | 23 307 | 24 216 | 112 326 |
| 8 | Board exp | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| 9 | External audit | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| # | Other administrative expenses | 47 000 | 48 833 | 50 737 | 52 716 | 54 772 | 56 908 | 263 967 |
| | Administrative expenses, head office | 132 000 | 137 148 | 142 497 | 148 054 | 153 828 | 159 828 | 741 355 |
| Q03 | Administrative expenses, single typical branch office | | | | | | | |
| 1 | Rent | 8 000 | 8 312 | 8 636 | 8 973 | 9 323 | 9 687 | 44 931 |
| 2 | Utilities | 3 000 | 3 117 | 3 239 | 3 365 | 3 496 | 3 632 | 16 849 |
| 3 | Communications and internet | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| 4 | Transportation | 5 000 | 5 195 | 5 398 | 5 608 | 5 827 | 6 054 | 28 082 |
| 5 | Repairs, maintenance, insurance | 3 000 | 3 117 | 3 239 | 3 365 | 3 496 | 3 632 | 16 849 |
| 6 | Training expenses for clients | 2 000 | 2 078 | 2 159 | 2 243 | 2 331 | 2 422 | 11 233 |
| 7 | Other administrative expenses | 500 | 520 | 540 | 561 | 583 | 605 | 2 808 |
| | Administrative expenses, single typical branch of | 26 500 | 27 534 | 28 607 | 29 723 | 30 882 | 32 087 | 148 833 |
| Q04 | Scale and quantity of branch offices | % typical | | | | | | |
| 1 | Large urban branch office | 125% | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 |
| 2 | Medium urban branch office | 100% | 3,00 | 3,00 | 3,00 | 3,00 | 3,00 | 4,00 |
| 3 | Small urban branch office | 65% | 1,00 | 1,00 | 2,00 | 2,00 | 2,00 | 2,00 |
| 4 | Medium rural branch office | 50% | | 1,00 | 1,00 | 2,00 | 2,00 | 1,00 |
| 5 | Small rural branch office | 50% | | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| | Total number of branches | 5,00 | 6,00 | 7,00 | 8,00 | 8,00 | 8,00 | 8,00 |
| | Nr of branches input on Staff sheet | 5 | 6 | 7 | 8 | 8 | 8 | 8 |
| Q05 | Consistency of branch information | OK | OK | OK | OK | OK | OK | |
| | Administrative expenses, branch offices | 129 850 | 148 681 | 173 074 | 194 686 | 202 278 | 226 210 | 148 833 |
| Q06 | Depreciation of fixed assets (see Fixed Investments) | 100 000 | 200 000 | 450 000 | 725 000 | 1 025 000 | 1 150 000 | 3 550 000 |
| | Total administrative expenses | 361 850 | 485 829 | 765 571 | 1 067 740 | 1 381 107 | 1 536 038 | 5 236 284 |
| | Total admin expenses imported from MFI Factshee | 355 000 | OK | | | | | |
| | Personnel expenses (see Staff) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total operating expenses | 361 850 | 485 829 | 765 571 | 1 067 740 | 1 381 107 | 1 536 038 | 5 236 284 |

Line Q03 – Administrative expenses, single typical branch office

If you have chosen to enter branch-level expense data, you may do so in this section. You have the option to change the default names of the expense categories.

If you have chosen to enter the expenses of a typical single branch office rather than a total of all branch expenses, select one of your most frequent examples, such as "medium-sized urban office". Enter those expenses here. Then, in the section below, you will be able to identify up to 5 different types of branch offices and indicate what percentage of the total "typical" expenses each type has.

Line Q04 – Administrative expenses, single typical branch office

In this section you can identify up to five different scales of branch offices. You can change the five descriptions currently showing on the lines, and you can change the scale of the expenses relative to those of the typical branch office entered above.

You can also change the percentages in the “% typical” column. These percentages will be multiplied by the total expenses of the typical branch office.

Then, in the yearly columns, enter the number of branches of each scale. The total branches will need to be consistent with the number of branches entered on the Staff worksheet. Note that a branch can change in scale over the years. You may open a new “small urban” branch and then in the next year it grows into a “medium urban” branch with higher expenses. You can indicate that by changing the number of branches in each row. Also, a branch may open mid-year and have less than a full year of expenses. You can enter a fraction in this case, e.g., 0.5 branch means a branch that opened half way through the year.

Line Q05 – Consistency of branch information

The projected number of branches are first entered on the Staff worksheet. The numbers entered above must be consistent with those numbers. Given that you have the option to enter fractions, such as 4.5 branches, if the 5th branch is opening up 6 months into the year, the totals may be off by as much as 0.5 branches without being flagged as an error.

3.8.4 Other expense categories

The final section on this sheet allows you to input other expenses, as shown in the screenshot below.

| OTHER EXPENSE CATEGORIES | | | | | | | | |
|--|---|----------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1 | Interest paid for client deposits (see Savings) | 0 | 292 278 | 307 951 | 335 960 | 366 515 | 399 850 | 1 702 554 |
| 2 | Interest and fee expense for borrowed funds (see Fundin | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Q07 | 3 Other financial expenses | 0 | 10 000 | 12 000 | 14 000 | 16 000 | 18 000 | 70 000 |
| 4 | Net loan loss provision expenses (see Loan Portfolio) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Non-operational expenses | 0 | | | | | | 0 |
| Q08 | 6 Extraordinary expenses | 0 | | | | | | 0 |
| TOTAL EXPENSES | | 361 850 | 788 107 | 1 085 522 | 1 417 699 | 1 763 622 | 1 953 888 | 7 008 838 |
| Net Income (Before Donations, Income-Taxes And Dividen | | 355 000 | -788 107 | -1 083 522 | -1 413 699 | -1 757 622 | -1 945 888 | -6 988 838 |
| Q09 | Applicable taxation rate on profit | 0,0% | 0,0% | 0,0% | 0,0% | 0,0% | 0,0% | |
| Taxation on profit | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Operating expense ratio | | 2,0% | 1,6% | 2,0% | 2,6% | 3,3% | 3,5% | |

Line Q07- Depreciation of fixed assets:

Total of depreciation each year on all categories of fixed assets.

Line Q08- Other financial expenses:

Other financial expenses include mortgage costs, facility fees for credit lines, and other financial risk management costs.

Line Q09- Extraordinary expenses:

Expense can only be considered extraordinary when it is not likely to be repeated in coming years. Preferably this account should be used as little as possible and only contain those elements that must be considered truly extraordinary.

Line Q09- Applicable taxation rate on profit:

Includes all taxes paid on net income or other measure of profits as defined by local tax authorities. This item may also include any revenue tax. It excludes taxes related to employment of personnel, financial transactions, fixed-assets purchase or other value-added taxes (which should be included in operating expenses).

3.9 Enter assumptions on investments

To complete the Investment sheet, think of following items and adapt them if necessary:

1. Foresee an investment cost per new branch or service point
2. Does each field officer have the required means of transportation? (Foresee replacements!)
3. Add other required investments
4. Define a write-off or depreciation rate to the total amount of investments.

In the last section, you can project other short- and long-term assets.

3.9.1 Investment in new branches

Estimation of the cost of opening a new branch can include office purchase, office equipment, furniture... This line should only include fixed assets and investments as this goes to the Fixed Asset line in the Balance Sheet. All true expenses (which are not investments), including one-time expenses should be entered on the Other Costs sheet.

| MV10 microvision PROJECTED INVESTM | | | | | | | | REPORT IN | 1 808 |
|---|--------------------------------------|-----------|---------------|--------------|---------------|---------------|---------------|------------|---------------|
| NAME OF INSTITUTION | | SABORA | | | | | | | |
| | | Year 2016 | Year 2017 | Year 2018 | Year 2019 | Year 2020 | Year 2021 | 5 Yr Total | |
| INVESTMENT IN NEW BRANCHES (OPENING) | | | | | | | | | |
| | Number of branches (Staff sheet) | 6 | 8 | 9 | 12 | 15 | 18 | | |
| | Number of new branches | | 2 | 1 | 3 | 3 | 3 | | |
| N01 | Cost of office set-up per new branch | | 7,000 | 7,273 | 7,557 | 7,851 | 8,158 | | |
| TOTAL INVESTMENT IN NEW BRANCHES | | | 14,000 | 7,273 | 22,670 | 23,554 | 24,473 | | 91,970 |

3.9.2 Transportation equipment

This section allows you to plan transportation for loan officers as well as vehicles for general use.

| Hide details | | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | Year 2024 | 5 Yr Total | Deprec Rate (%) |
|--|---|-----------|--------------|---------------|---------------|---------------|---------------|---------------|-----------------|
| TRANSPORT EQUIPMENT | | | | | | | | | |
| | Number of Loan officers | 7 | 9 | 12 | 16 | 21 | 28 | | |
| N02 | Number of new motorbikes for change in loan officers | | 2 | 3 | 4 | 5 | 7 | | 21 |
| | Number of new motorbikes required to replace existing | | 2 | 3 | 4 | 4 | 5 | | 18 |
| | Price per motorbike | | 1,200 | 1,248 | 1,298 | 1,350 | 1,404 | | |
| 2 | New investment in motorbikes | | 4,800 | 7,488 | 10,383 | 12,149 | 16,846 | 51,666 | 25% |
| N03 | 3 New investment in vehicles | | | 20,000 | | | | 20,000 | 14% |
| N04 | 4 Other transport investments | | | | | | | | 20% |
| TOTAL NEW INVESTMENT IN TRANSPORT EQUIPMENT | | 0 | 4,800 | 27,488 | 10,383 | 12,149 | 16,846 | 71,666 | |

Line N02- Number of new motorbikes required (incl. replacements):

Number of new motorbikes to buy during the year. On the first line indicate quantity as new loan officers are added. On the second line, indicate the quantity to replace old ones. As some equipment may have a life of less than 5 years, or existing equipment in Year 0 may need replacement soon, you will need to do some side calculations. In the right-most column enter the average depreciation percentage for this category, e.g., 20% means 5 years depreciation.

Line N03- New investment in vehicles

Amount to invest in new vehicles (cars, buses, boats, etc. except motorbikes) during the year (including to replace old ones). In the right-most column enter the average depreciation percentage for this category, e.g., 20% means 5 years depreciation.

Line N04- Other transport investments:

Enter here anything that we didn't mention in motorbikes and vehicles.

3.9.3 Office equipment and other investments

Here you can enter all the office equipment needed for the 5 coming years, both for expansion and potentially to replace existing equipment and furniture. The lines have default descriptions, but you can change them as you wish. Do ensure that you do not double-count any expenses already incorporated in the costs of opening a new branch. In the right-hand column, input depreciation rates that fit the content of each line.

| | | Hide details | | Year | Year | Year | Year | Year | Year | 5 Yr Total | Deprec Rate (%) |
|-----|---|--------------|--------|--------|--------|------|--------|------|--------|------------|-----------------|
| | | Year | Year | Year | Year | Year | Year | Year | Year | 5 Yr Total | Deprec Rate (%) |
| N05 | OFFICE EQUIPMENT AND OTHER INVESTMENTS | | | | | | | | | | |
| 5 | MIS software and computer equipment | | 15,000 | | 30,000 | | | | | 45,000 | 25% |
| 6 | Other office equipment | | 10,000 | 10,000 | 10,000 | | 10,000 | | 10,000 | 50,000 | 20% |
| 7 | Buildings | | | | | | | | | 0 | 5% |
| 8 | Land | | | | | | | | | 0 | 0% |
| 9 | Other investments | | | | | | | | | 0 | 25% |
| 10 | Other investments | | | | | | | | | 0 | 25% |
| 11 | Other investments | | | | | | | | | 0 | 25% |
| 12 | Other investments | | | | | | | | | 0 | 25% |
| 13 | Other investments | | | | | | | | | 0 | 25% |
| | TOTAL OFFICE EQUIPMENT AND OTHER INVESTMENTS | 0 | 25,000 | 10,000 | 40,000 | | 10,000 | | 10,000 | 95,000 | |
| | | Year | Year | Year | Year | Year | Year | Year | Year | 5 Yr Total | |
| N05 | OFFICE EQUIPMENT AND OTHER INVESTMENTS | | | | | | | | | | |
| | MIS software and computer equipment | | 15,000 | | 30,000 | | | | | 45,000 | |
| | Other office equipment | | 10,000 | 10,000 | 10,000 | | 10,000 | | 10,000 | 50,000 | |
| | Other investments | | | | | | | | | 0 | |
| | Other investments | | | | | | | | | 0 | |
| | Other investments | | | | | | | | | 0 | |
| | TOTAL OFFICE EQUIPMENT AND OTHER INVESTMENTS | | 25,000 | 10,000 | 40,000 | | 10,000 | | 10,000 | 95,000 | |

3.9.4 Summary of all investments and fixed assets

This section summarizes all inputs for investments and fixed assets and estimates the depreciation of those, which will enter as an annual expense on your Income Statement. In accounting, there are complex methods of depreciation, with different lives assigned to different categories of assets. Microvision allows only a simple calculation based on a percentage of the current net value. You should choose a percentage that reflects the weighted average life and your accounting rules.

| | | Hide details | | Year | Year | Year | Year | Year | Year | 5 Yr Total |
|-----|--|--------------|--------|--------|---------|---------|---------|------|------|------------|
| | | Year | Year | Year | Year | Year | Year | Year | Year | 5 Yr Total |
| | TOTAL NET VALUE OF INVESTMENTS AND FIXED ASSETS | | | | | | | | | |
| N06 | Depreciation calculations | | | | | | | | | |
| 1 | Total Investment In New Branches | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | New investment in motorbikes | | 0 | 1,200 | 3,072 | 5,668 | 8,705 | | | 18,645 |
| 3 | New investment in vehicles | | 0 | 0 | 2,857 | 2,857 | 2,857 | | | 8,571 |
| 4 | Other transport investments | | 0 | 0 | 0 | 0 | 0 | | | 0 |
| 5 | MIS software and computer equipment | | 0 | 3,750 | 3,750 | 11,250 | 11,250 | | | 30,000 |
| 6 | Other office equipment | | 0 | 2,000 | 4,000 | 6,000 | 8,000 | | | 20,000 |
| 7 | Buildings | | 0 | 0 | 0 | 0 | 0 | | | 0 |
| 8 | Land | | 0 | 0 | 0 | 0 | 0 | | | 0 |
| 9 | Other investments | | 0 | 0 | 0 | 0 | 0 | | | 0 |
| 10 | Other investments | | 0 | 0 | 0 | 0 | 0 | | | 0 |
| 11 | Other investments | | 0 | 0 | 0 | 0 | 0 | | | 0 |
| 12 | Other investments | | 0 | 0 | 0 | 0 | 0 | | | 0 |
| 13 | Other investments | | 0 | 0 | 0 | 0 | 0 | | | 0 |
| | Depreciation for the period | 120,000 | 0 | 6,950 | 13,679 | 25,775 | 30,812 | | | 77,216 |
| N07 | % subsidized investment | | 0% | 0% | 0% | 0% | 0% | | | 0% |
| N08 | Adjustment factor for depreciation of subsidized equipment | | 100% | 100% | 100% | 100% | 100% | | | 100% |
| N09 | Reversal of amortization of subsidized investments | | 0 | 0 | 0 | 0 | 0 | | | 0 |
| | Calculation of net value of investments | | | | | | | | | |
| | Total new investment | | 29,800 | 37,488 | 50,383 | 22,149 | 26,846 | | | |
| | Cumulative equipment value | 0 | 29,800 | 67,288 | 117,671 | 139,820 | 166,666 | | | |
| N10 | Cumulative depreciation | | 0 | 6,950 | 20,629 | 46,404 | 77,216 | | | |
| | Net value property and equipment | 0 | 29,800 | 60,338 | 97,042 | 93,416 | 89,450 | | | |
| N11 | Net value property & equip (MFI Factsheet, line A14) | 0 | OK | | | | | | | |

| | Year 2016 | Year 2017 | Year 2018 | Year 2019 | Year 2020 | Year 2021 | 5 Yr Total |
|--|--|----------------|----------------|----------------|----------------|----------------|----------------|
| TOTAL NET VALUE OF INVESTMENTS AND FIXED ASSETS | | | | | | | |
| Depreciation calculations | | | | | | | |
| N06 | Depreciation rate of the equipment | 14.2% | 14.2% | 14.2% | 14.2% | 14.2% | |
| | Depreciation for the period | 120,000 | 127,256 | 117,115 | 112,686 | 105,641 | 564,183 |
| N07 | % subsidized investment | | 0% | 0% | 0% | 0% | |
| N08 | Reversal of amortization of subsidized investments | | 0 | 0 | 0 | 0 | 0 |
| Calculation of net value of investments | | | | | | | |
| | Total new investment | | 51,000 | 55,975 | 85,988 | 63,165 | 76,426 |
| | Cumulative equipment value | 843,496 | 894,496 | 950,471 | 1,036,459 | 1,099,623 | 1,176,049 |
| N09 | Cumulative depreciation | | 127,256 | 244,370 | 357,057 | 462,698 | 564,183 |
| | Net value fixed assets | 843,496 | 767,240 | 706,101 | 679,402 | 636,925 | 611,866 |

Line N06- Depreciation calculations:

Depreciation calculations are made by the following process: The initial balance from Year 0 and the new investments made each year are multiplied by the depreciation rate to determine the amount depreciated each year. This figure is then used to sum up the depreciation for each line item over "x" previous years, where "x" is the inverse of the depreciation rate, e.g., 20% depreciation rate is a period of 5 years (1/0.20). The calculations are done in an area that is exposed at the bottom of this sheet when showing details.

Line N07- % subsidized investment:

Share of investments done during the year that were sponsored by grants. The grant amount is indicated in Section U05 on the Funding sheet.

Line N08- Adjustment factor for depreciation of subsidized equipment:

The subsidized investments may have depreciated slower or faster than the average weighted depreciation rate used for all the categories and items. If so, you can adjust the amount of depreciation connected with the subsidized investments upwards (e.g., 110%) or downwards (e.g. 90%). If you feel there is not a significant difference, you can keep this index at 100%.

Line N09- Reversal of amortization of subsidized investments:

If there is any subsidized investment, then the amortization calculation is adjusted by this calculated amount.

Line N10- Cumulative depreciation:

Cumulated value of depreciation of the year under consideration and the previous year.

Line N11- Net value property & equipment:

The MFI Factsheet has the total net value of property and equipment. You will need to distribute this as best you can amount the categories of previous Branch Office Investment, previous Transportation investment, and previous Office Equipment and Other Investments. The reason for distributing the net values is that each item/category can be assigned a different depreciation rate using the right-most column.

3.9.5 Other short and long term assets

This final section allows you to estimate current and long term assets. The Year 0 figures are shown and you can input amounts and changes.

| | Hide details | Year 2019 | Year 2020 | Year 2021 | Year 2022 | Year 2023 | Year 2024 |
|---|---|--------------|--------------|--------------|--------------|--------------|--------------|
| LONG-TERM INVESTMENTS AND OTHER LONG-TERM ASSETS | | | | | | | |
| N12 | Investments > 1 year | 0 | 0 | 0 | 0 | 0 | 0 |
| N13 | Change in other long term assets (% or fixed) | | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| | Other long term assets | 145,020 | 150,821 | 156,854 | 163,128 | 169,653 | 176,439 |

Line N12- Investments > 1 year:

This line includes investments that have a fixed maturity or payments that the MFI intends to hold to maturity. This item may include bonds or shares that the MFI plans to hold for 12 months or more or other financial assets available for sale but not considered loans, receivables or Trade Investments.

The default formula has been set to growing with inflation, but it can be changed upon your preferences.

Line N13- Change in other long term assets (% or fixed):

If there is a doubt regarding the classification of items in either long or short term accounts, conservative practice in accounting dictates to categorize these items as long term when dealing with assets. The default formula has these growing at inflation, but you may change the figure as you wish.

3.10 Enter assumptions on funding

In the Funding sheet, you can plan the mobilisation of debt and equity with the exception of deposits that were already defined in the Savings sheet. The funding categories defined here are as follow:

1. **Grants:** are separated into grants for operations and grants for investments. Some grants for operations are already specified in the Other Costs sheet, but can be completed here with additional operational grants not linked to a specific expense
2. **Equity:** share capital and other capital donations are input here and feed directly to the appropriate lines on the Balance Sheet
3. **Debt Funding (loans):** these are defined for each year, the new amounts received as loans and the amounts repaid of previous loans. This is done per investor or investor category (a max of 20 is possible). There is also an Automated Credit Line to close the funding gap to automatically fill in when loans are needed for which no potential investor has yet been identified. For each investor category, the interest rate costs and fee costs are defined
4. Finally, there is also the option to increase the “**other liabilities**”, although we do not recommend using this feature in financial projections or at least to only reduce it over time. This means: keeping less unpaid creditors (those that are still to be paid) that offered you some services. To reduce or increase “other liabilities” you can use the index. This index is multiplied with the value of the liabilities of the previous year to obtain the new value of other liabilities. An index of 130% means for instance an increase of the other liabilities of 30%.

3.10.1 Automatic Credit Line

The top section on the sheet is actually hidden until enabled using the checkbox on Line U01. You should only turn this on in the last stages of you planning to determine the amount of your funding shortage. When enabled, Microvision will bring in or pay back the necessary amount of loan capital to maintain a sufficient amount of cash at the end of the fiscal year.

| microvision | | PROJECTED FUNDING SOURCES AND AMOUNTS | | | | | | |
|---------------------|---|---------------------------------------|---|-----------|---------|-------------|-------------|------------|
| NAME OF INSTITUTION | | SABORA | | | | | REPORT IN | 1 BOB |
| U01 | Number of investors/lenders | 2 | <input checked="" type="checkbox"/> Use automatic credit line to keep cash positive | | | | | |
| U02 | AUTOMATIC CREDIT LINE TO CLOSE THE FUNDING GAP | Year | Year | Year | Year | Year | Year | 5 Yr Total |
| | Closing Balance Liquidities | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | |
| | Closing Balance Liquidities | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | (1,481,852) | (2,599,605) | |
| | Closing Balance Liquidities (Incl. Auto Credit Line) | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | 0 | 1,481,852 | |
| U03 | AUTOMATIC CREDIT LINE TO CLOSE THE FUNDING GAP | | | | | | | |
| | Change in auto credit line | | 0 | 0 | 0 | 1,481,852 | 2,599,605 | |
| | Balance of auto credit line | | 0 | 0 | 0 | 1,481,852 | 4,081,457 | |
| | Interest rate charged on auto credit line | | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | |
| | Interest paid on auto credit line | | | 0 | 0 | 0 | 74,093 | |
| | Net Income (before donations), before interest payment on auto-line-of-credit | | | | | | | |

Line U02- Automatic credit line to close the funding gap:

This top section shows you the key information from the Projected Cash Flow sheet - do you have enough liquid funds to finance all the activities you have planned? If you have a negative balance, you'll need to:

- reduce expenses, and/or
- raise more income from your loan products, and/or
- increase growth (scale) and see if your economies of scale enable you to generate enough profit to keep a positive cash flow, and/or
- access more financing, either in equity investments or debt financing.

You have the option to turn on a temporary "quick fix" - an automatic credit line - that will draw in sufficient debt financing to keep a positive balance. See line U03 for more explanation.

Line U03- Automatic credit line to close the funding gap:

This option is enabled with the checkbox at the top of the page. When enabled, Microvision will determine how much you are short of liquid funds at the end of each fiscal year and input a loan amount sufficient to fund projected activities. If, in a future year, you have an outstanding balance on this automatic credit line and you do have excess liquidity, it will pay back some or all of this credit line.

You can input an interest rate to pay on this credit line. Due to some limitations in the calculations in Microvision, you will pay interest on this loan in the following year, even though some of that interest payment would generally be made in the same year that the loan was taken. Therefore, to finalize your plan, it is best to input a new funding source that makes this automated source unnecessary and shows financial costs in the proper year.

3.10.2 Planning donations (grants and subsidies)

| | Year | Year | Year | Year | Year | Year | 5 Yr Total |
|------------|---|---------------|----------------|---------------|-----------|-------------|----------------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | |
| U02 | AUTOMATIC CREDIT LINE TO CLOSE THE FUNDING GAP | | | | | | |
| | Closing Balance Liquidities | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | (1,481,852) | (2,599,605) |
| | Closing Balance Liquidities (Incl. Auto Credit Line) | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | 0 | 1,481,852 |
| | DONATIONS (GRANTS, SUBSIDIES) | | | | | | |
| U04 | Total new donations for operations (reported on Income Statement) | | | | | | |
| | New donations not noted on Other Costs sheet | 11,325 | | | | | 0 |
| | Donations for expenses input on Other Costs sheet | | 40,000 | 20,000 | 0 | 0 | 60,000 |
| | Total new donations for operations | 11,325 | 40,000 | 20,000 | 0 | 0 | 60,000 |
| U05 | Investment donations (reported in Equity section of Balance Sheet) | | | | | | |
| | Donations for loan portfolio | | 200,000 | | | | 200,000 |
| | Investment donations | | | | | | 0 |
| | Other capital donations | | | | | | 0 |
| | Total new donated equity | | 200,000 | 0 | 0 | 0 | 200,000 |
| | Cumulative donated equity | 2,614,414 | 2,814,414 | 2,814,414 | 2,814,414 | 2,814,414 | 2,814,414 |

Line U04- Total new donations for operations (reported on Income Statement):

If your institution is still using donated funds, you can input any new donations in this section.

The top part allows for input of donations for operations, which are reported in the Income Statement after Net Income. The second line of this section shows operational grants that you have already identified on the Other Costs sheet in section Q12 (in-kind donations are excluded). The first line allows you to input any additional grants not already identified.

The lower portion is for investment donations - donations specified for loan portfolio, investments and fixed assets and other capital. These donations are not reported on your Income Statement but are instead shown in the Equity section of your Balance Sheet.

Line U05- Investment donations (reported in Equity section of Balance Sheet):

The method of accounting for donations may dictate to report a grant directly as equity. Such amounts are reported here. They usually concern investment grants: for fixed assets and loan funds principally – as opposed to grants for operations that run through the Income Statement.

3.10.3 Planning for new equity sources

| | Year | Year | Year | Year | Year | Year | 5 Yr Total |
|------------|---|-----------|-----------|-----------|-----------|-------------|-------------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | |
| U02 | AUTOMATIC CREDIT LINE TO CLOSE THE FUNDING GAP | | | | | | |
| | Closing Balance Liquidities | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | (1,481,852) | (2,599,605) |
| | Closing Balance Liquidities (Incl. Auto Credit Line) | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | 0 | 1,481,852 |
| | EQUITY | | | | | | |
| U06 | Share capital increases | | 100,000 | | | | 100,000 |
| | Paid-up share capital | 201,000 | 301,000 | 301,000 | 301,000 | 301,000 | 301,000 |
| U07 | Other (non-grant) contributions to equity | | | | | | 0 |
| | Other capital accounts | 0 | 0 | 0 | 0 | 0 | 0 |
| U08 | Dividends paid out | | | | | | |
| | Estimated profit | | 123,786 | 597,461 | 1,057,596 | 1,731,953 | 2,498,081 |
| | % of profit paid out as dividend | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| | Dividends paid out | | 0 | 0 | 0 | 0 | 0 |

Line U06- Share capital increases:

If your institution holds share capital, you can input any changes in share capital on this line.

Line U07- Other (non-grant) contributions to equity:

Fill here in any remaining transactions that impact equity in the Balance Sheet, such as revaluations and adjustments, e.g. inflation accounting. Do not confuse this line with entries that apply to share capital and donated capital.

Line U08- Dividends paid out:

If your institution pays dividends, you can calculate them here. The formula is based on a percentage of the profit of the year.

3.10.4 Planning management of your debt financing

This section allows you to manage your debt financing. Here you can identify all current and future investors/lenders. There is a dropdown at the top of this sheet that allows you to open up to 20 lines.

In section U13, enter the balance owed to each lender at the end of Year 0. This will need to match the total shown in the MFI Factsheet.

Then, in section U10, input any new loan funds entering in each year, and in section U11 input any repayment (of loan principal only!) for each year. You will then see the balance owed to each loan source at the end of the year in section U13.

| | Year | Year | Year | Year | Year | Year | 5 Yr Total |
|------------|---|-----------|-----------|-----------|-----------|-------------|-------------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | |
| U02 | AUTOMATIC CREDIT LINE TO CLOSE THE FUNDING GAP | | | | | | |
| | Closing Balance Liquidities | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | (1,481,852) | (2,599,605) |
| | Closing Balance Liquidities (Incl. Auto Credit Line) | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | 0 | 1,481,852 |
| | DEBT FUNDING | | | | | | |
| U09 | Loan balance at the start of the year | | 5,184,224 | 4,884,224 | 4,584,224 | 4,284,224 | 3,984,224 |
| U10 | Loan sources | | | | | | |
| 1 | Investor 1 | | | | | | |
| 2 | Investor 2 | | | | | | |
| | Total new borrowing | | 0 | 0 | 0 | 0 | 0 |
| U11 | Repayment | | | | | | |
| 1 | Investor 1 | | 300,000 | 300,000 | 300,000 | 300,000 | 1,500,000 |
| 2 | Investor 2 | | | | | | 0 |
| | Total repayment | | 300,000 | 300,000 | 300,000 | 300,000 | 1,500,000 |
| U12 | Loan balance | | | | | | |
| 1 | Investor 1 | 5,184,224 | 4,884,224 | 4,584,224 | 4,284,224 | 3,984,224 | 3,684,224 |
| 2 | Investor 2 | | 0 | 0 | 0 | 0 | 0 |
| U13 | Total loan balance | 5,184,224 | 4,884,224 | 4,584,224 | 4,284,224 | 3,984,224 | 3,684,224 |
| | Check: Total on MFI Factsheet Item Ref F08: | 5,184,224 | OK | | | | |

Line U09- Loan balance at the start of the year:

This beginning line in the debt funding section shows the loan balance at the start of the year, as shown in the Balance Sheet end-of-year figure from the previous year.

Line U10- Loan sources:

Here you can identify all current and future investors/lenders. There is a dropdown at the top of this sheet that allow you to open up to 20 lines. In section U13, enter the balance owed to each lender at the end of Year 0. This will need to match the total shown in the MFI Factsheet.

Then, in section U10, input any new loan funds entering in each year, and in section U11 input any repayment (of loan principal only!) for each year. You will then see the balance owed to each loan source at the end of the year in section U13.

Line U11- Repayment:

Here you can identify all current and future investors/lenders. There is a dropdown at the top of this sheet that allow you to open up to 20 lines. In section U13, enter the balance owed to each lender at the end of Year 0. This will need to match the total shown in the MFI Factsheet.

Then, in section U10, input any new loan funds entering in each year, and in section U11 input any repayment (of loan principal only!) for each year. You will then see the balance owed to each loan source at the end of the year in section U13.

Line U12- Loan balance:

Here you can identify all current and future investors/lenders. There is a dropdown at the top of this sheet that allow you to open up to 20 lines. In section U13, enter the balance owed to each lender at the end of Year 0. This will need to match the total shown in the MFI Factsheet.

Then, in section U10, input any new loan funds entering in each year, and in section U11 input any repayment (of loan principal only!) for each year. You will then see the balance owed to each loan source at the end of the year in section U13.

Line U13- Total loan balance:

This is the total balance owed on all debt financing, including the automatic credit line.

3.10.5 Planning quasi-capital loans (subordinated debt)

Quasi-equity (or Subordinated Debt) combines both debt and equity characteristics. It usually refers to borrowed funds received through a contractual arrangement that will remain in the MFI as permanent capital having characteristics of equity capital. Examples of quasi-equity are convertible debt and subordinate financing. In some instances, long term debt may be considered quasi-equity especially where the repayment is spread over a long period of time.

| | Year 2016 | Year 2017 | Year 2018 | Year 2019 | Year 2020 | Year 2021 | 5 Yr Total |
|------------|---|-----------|-----------|-----------|-----------|-------------|-------------|
| U02 | AUTOMATIC CREDIT LINE TO CLOSE THE FUNDING GAP | | | | | | |
| | Closing Balance Liquidities | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | (1,481,852) | (2,599,605) |
| | Closing Balance Liquidities (Incl. Auto Credit Line) | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | 0 | 1,481,852 |
| U14 | QUASI CAPITAL LOANS (SUBORDINATED DEBT) | | | | | | |
| | Total new borrowing | | | 500,000 | | | 500,000 |
| | Repayment | | | | | | 0 |
| | Loan balance | 1,000,000 | 1,000,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |

3.10.6 Calculating the cost of debt financing

| | Year | Year | Year | Year | Year | Year | 5 Yr Total |
|------------|---|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | |
| U02 | AUTOMATIC CREDIT LINE TO CLOSE THE FUNDING GAP | | | | | | |
| | Closing Balance Liquidities | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | (1,481,852) | (2,599,605) |
| | Closing Balance Liquidities (Incl. Auto Credit Line) | 3,125,793 | 3,331,401 | 2,414,843 | 233,388 | 0 | 1,481,852 |
| U15 | BORROWED FUNDS - INTEREST RATE | | | | | | |
| 1 | Investor 1 | | 4.3% | 4.3% | 4.3% | 4.3% | 4.3% |
| 2 | Investor 2 | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| U14 | Quasi capital loans (Subordinated Debt) | | | | | | |
| U16 | Commercial interest rate | 8.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| U17 | BORROWED FUNDS - FEES | | | | | | |
| 1 | Investor 1 | | 0 | 0 | 0 | 0 | 0 |
| 2 | Investor 2 | | 0 | 0 | 0 | 0 | 0 |
| U14 | Quasi capital loans (Subordinated Debt) | | | | | | |
| U18 | COST OF DEBT (INTEREST AND FEES) | | | | | | |
| 1 | Investor 1 | | 214,953 | 202,143 | 189,334 | 176,524 | 163,715 |
| 2 | Investor 2 | | 0 | 0 | 0 | 0 | 0 |
| U14 | Quasi capital loans (Subordinated Debt) | | | | | | |
| | Total cost of interest payable on borrowing | 202,288 | 214,953 | 202,143 | 189,334 | 176,524 | 163,715 |

Line U15- Borrowed funds - interest rate:

Enter here the annual interest rates paid on all borrowed funds.

Line U16- Commercial interest rate:

Enter the commercial lending rate. This is used for comparison purposes to determine if any of your loan sources are subsidized in order to calculate your Financial Self-Sufficiency (FSS).

Line U17- Borrowed funds - fees:

Insert the total fees related to each of your loan sources. Do not enter a figure such as "percent of loan balance", enter the actual amount charged.

Line U18- Cost of debt (interest and fees):

This adds up the actual fee amount entered in U18 and adds interest as calculated by the annual interest rate times the average loan balance for the year.

3.10.7 Other liabilities and cash and short-term investment allocation

The final sections on this sheet covers two areas related to funding and excess funds.

| | Year | Year | Year | Year | Year | Year |
|------------|---|----------|---------|---------|---------|---------|
| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| U02 | PROJECTED CASH FLOW | | | | | |
| | Closing Balance Liquidities | -186,743 | 75,395 | 146,530 | 228,769 | 374,919 |
| U19 | OTHER CURRENT ASSETS AND OTHER LIABILITIES | | | | | |
| | Change in other current assets (% or fixed) | | 3.0% | 3.0% | 3.0% | 3.0% |
| | Other current assets | 73,455 | 75,659 | 77,928 | 80,266 | 82,674 |
| | Change in other liabilities (% or fixed) | | 10.0% | 10.0% | 10.0% | 10.0% |
| | Other liabilities | 34,732 | 38,205 | 42,026 | 46,228 | 50,851 |
| U20 | CASH AND SHORT-TERM INVESTMENT ALLOCATION | | | | | |
| | Operating Expenses | 388,000 | 300,274 | 349,844 | 378,248 | 404,926 |
| | Change in GLP | 0 | 0 | 0 | 0 | 0 |
| | Estimate of monthly cash usage | 32,333 | 25,023 | 29,154 | 31,521 | 33,744 |
| | % of monthly cash needed to keep on hand | | | 0.0% | 0.0% | 0.0% |
| | Minimum cash balance | 0 | 0 | 0 | 0 | 0 |
| | Short-term deposits available for use | | 75,395 | 146,530 | 228,769 | 374,919 |

Line U19- Other liabilities:

Input any anticipated change in the Other Current Assets and Other Liabilities line item in the Balance Sheet. The default formula is indexed to inflation.

Line U20- Cash and short-term investment allocation:

This section allows you to estimate how much additional cash cushion you need for liquidity, and if you have more than enough cash it directs the supplemental portion to short-term interest-earning investment. The calculation adds your average monthly expenses and your average monthly change in GLP (if the GLP is increasing). From this monthly usage, you can indicate how much cushion your institution needs on a monthly basis. 100% means a full month of cushion, 50% means 2 weeks of cushion. The Automatic Credit Line option in Microvision will then ensure that this minimum level is reached.

**You have entered now all the required data!
This means that the fun part of Microvision can begin!**

4 Check and adapt assumptions to get a balanced and feasible result

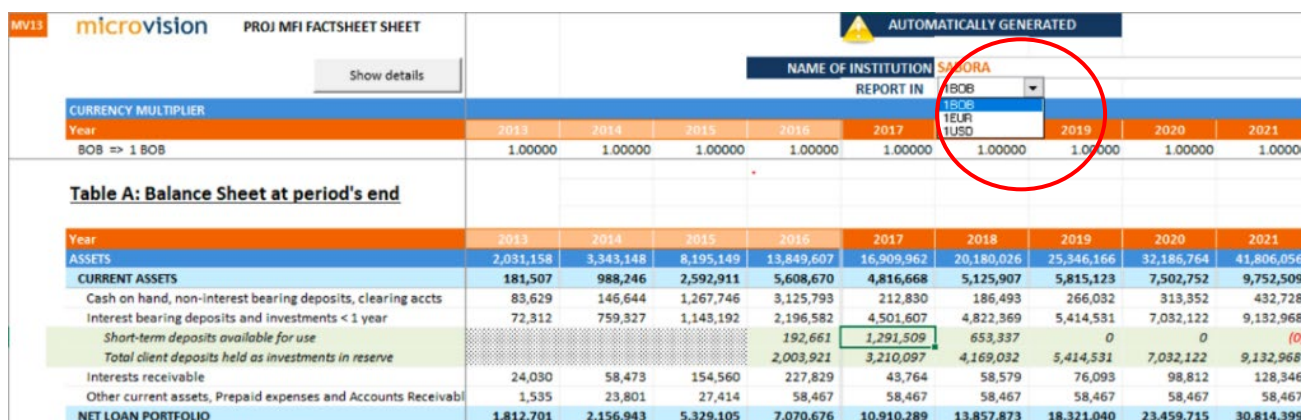
In this phase we will discuss how to check the calculated ratios, parameters and graphs. This will allow you to see if your projection is realistic, desired and feasible. In the event that this is not the case, you can adapt your assumptions until you obtain a satisfying result. In order to check and balance the results, the following tools (Output Reports) are available on the following sheets:

- **Proj MFI Factsheet:** projected financial statements
- **Performance indicators:** contains a set of financial indicators
- **Proj Cash Flow:** shows the projected cash flow. The end result flows into the cash line on the Balance Sheet
- **Graphs:** a set of selected social and financial indicators presented in a graphical form.

In these sheets, you will find indicators, financial data and graphs for 3 historical years and for a maximum of 5 projected years. It will help you to evaluate trends starting from the existing trend towards the intended future. You can consult the extensive list of indicators and financial data according to your own priorities and interests.

4.1 Consulting and checking results

The projection results can be seen in the **output reports**, meaning all green sheets of Microvision.



The screenshot shows the 'PROJ MFI FACTSHEET SHEET' in Microvision. At the top right, there is a dropdown menu for 'REPORT IN' with 'BOB' selected. Below this, a table shows the 'CURRENCY MULTIPLIER' for years 2013 to 2021, all set to 1.00000. Below that is 'Table A: Balance Sheet at period's end' with columns for years 2013 to 2021. The table lists various assets and liabilities, with the 'NET LOAN PORTFOLIO' at the bottom.

| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| ASSETS | 2,031,158 | 3,343,148 | 8,195,149 | 13,849,607 | 16,909,962 | 20,180,026 | 25,346,166 | 32,186,764 | 41,806,056 |
| CURRENT ASSETS | 181,507 | 988,246 | 2,592,911 | 5,608,670 | 4,816,668 | 5,125,907 | 5,815,123 | 7,502,752 | 9,752,509 |
| Cash on hand, non-interest bearing deposits, clearing accts | 85,629 | 146,644 | 1,267,746 | 3,125,793 | 212,830 | 186,493 | 266,032 | 313,352 | 432,728 |
| Interest bearing deposits and investments < 1 year | 72,312 | 759,327 | 1,143,192 | 2,196,582 | 4,501,607 | 4,822,369 | 5,414,531 | 7,032,122 | 9,132,968 |
| Short-term deposits available for use | | | | 192,661 | 1,291,509 | 653,337 | 0 | 0 | (0) |
| Total client deposits held as investments in reserve | | | | 2,003,921 | 3,210,097 | 4,169,032 | 5,414,531 | 7,032,122 | 9,132,968 |
| Interests receivable | 24,030 | 58,473 | 154,560 | 227,829 | 43,764 | 58,579 | 76,093 | 98,812 | 128,346 |
| Other current assets, Prepaid expenses and Accounts Receivable | 1,535 | 23,801 | 27,414 | 58,467 | 58,467 | 58,467 | 58,467 | 58,467 | 58,467 |
| NET LOAN PORTFOLIO | 1,812,701 | 2,156,943 | 5,329,105 | 7,070,676 | 10,910,289 | 13,857,873 | 18,321,040 | 23,459,715 | 30,814,399 |

You can **change the currency** of the **output reports** by clicking on the drop down currency list in the upper right hand corner of the screen and selecting a currency. The currency of *all* output reports will be changed simultaneously.

Attention

This has no effect on your input sheets: they will remain in the original currency.

4.1.1 Proj MFI Factsheet

The financial statements can be shown with varying degrees of detail. You have the option to just have a general outline or to have them broken down into a greater detail.

What you should check first in those statements is if there is enough and certainly no negative liquidity:

- In the event that there is too much liquidity, loans (refinance) can be reduced
- In the event that there is not enough liquidity, you can define a funding gap or the additional capital that needs to be raised in addition to the foreseen funding requirements
- You also have the option to use the Automatic Credit Line on the Funding sheet to quantify any funding gap that you currently have.

Attention

If you have a funding gap, be realistic when it comes to actively looking for additional funding. If not, growth will need to be downscaled to a level that you can realistically fundraise for.

4.1.2 Performance Indicators sheet

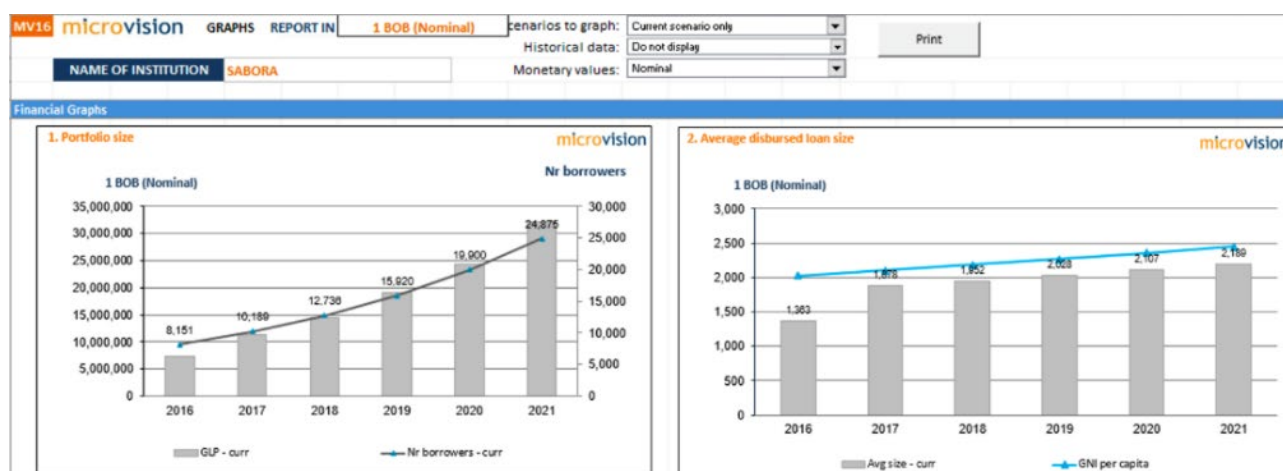
This is a great sheet to review and to interpret both outputs and trends in all areas of your business plan. There are useful indicators for both financial and social performance. If you have used the MFI Factsheet for your institutional analysis in the past, you will find all the same indicators here projected for your next five years.

Note that if you have a few indicators you prefer that are not included already, there is a User-Defined Formulas section toward the bottom of the sheet that you can use to build your own formulas to define them.

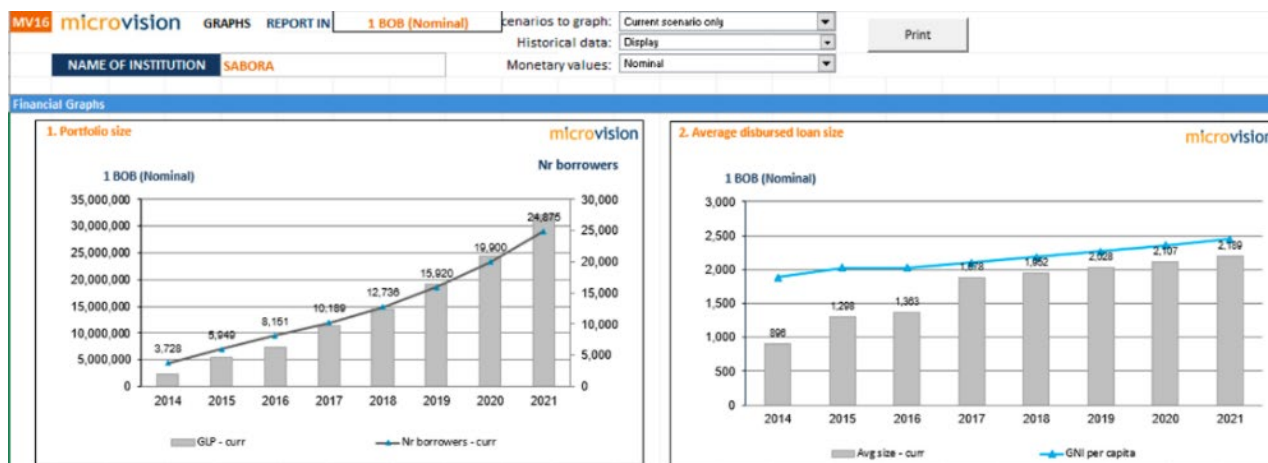
4.1.3 Graphs sheet

This powerful sheet has a wide range of options for you to use to graphically present the projected trends in your business plan. If some of the graphs seem crowded with information, remember you can use the dropdown options to reduce the amount of information contained in the graphs.

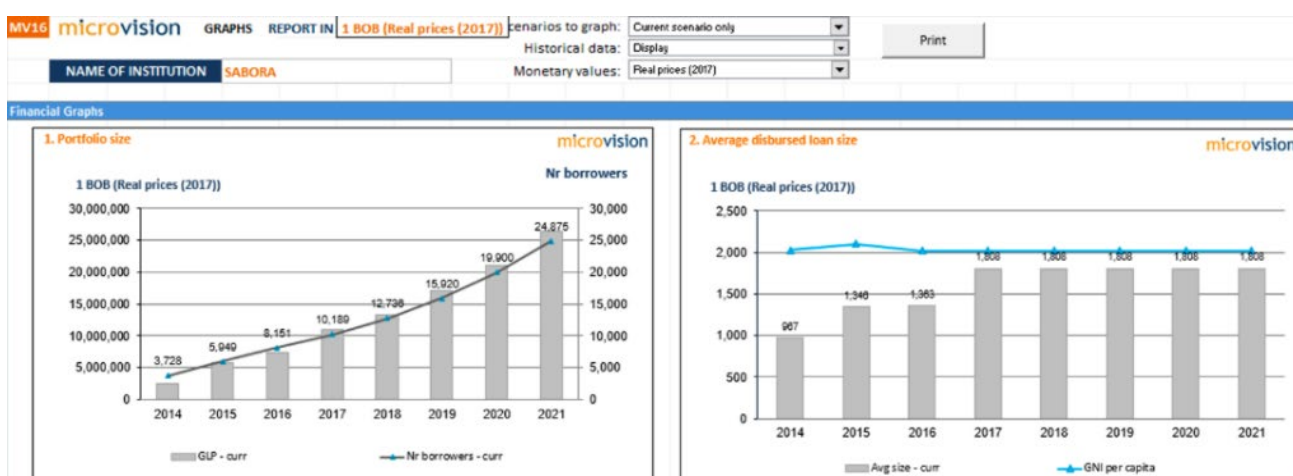
We'll start with the most basic graph, showing current data without any historical data. This shows six columns, one for Year 0 and five for each year in the projection:



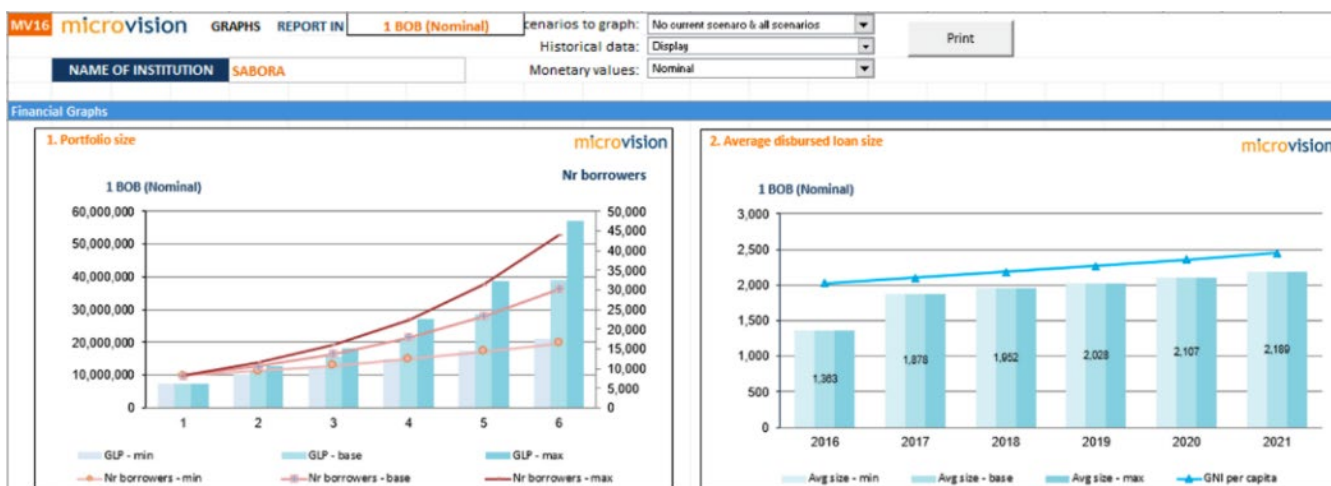
Alternatively, you can include historical data in the graph as well. If you've input 4 years of data in the MFI Factsheet, you can view 3 years of historical ratios (the 4th year of historical data is used to generate ratios for the 3rd year):



The third dropdown gives you the option to display the graphs in real terms, adjusting for inflation. This option uses the inflation data on the Identification sheet to adjust all prices to current values:



You also have the option to view any or all stored scenarios (created using the Strategy sheet, as explained in the next section) in the graph, alone, or in comparison with current data:



4.1.4 Input sheet

This sheet summarizes all assumptions and inputs previously defined. It is already in a printable layout so it can be easily added as an annex to a business plan, but it would be redundant if you are including printouts of the actual input sheets.

4.2 Changing assumptions

When positive results are not forthcoming, you have to go back to all of the beforementioned input sheets to change some of your assumptions.

To facilitate this process, **many of the most important assumptions** are compiled in the **Strategy** sheet and they can also be changed there. Changing an assumption in the Strategy sheet has the same effect as changing that assumption in one of the previous sheets. They are interconnected so that any changes made in one sheet automatically updates the other. Additionally, **some** of the key **performance indicators** are presented at the end of the **Strategy** sheet for comparison and verification in order to obtain satisfying projection results.

You can refine your projections either working on the Strategy sheet or moving around to the other input sheets. Once you have a plan you consider solid it is time to learn how to store those results and develop other scenarios. That is the topic of the next section.

5 Develop scenarios

While developing a projection, you are working with what we call **current data**. If the projection is satisfying, you may like to know what would happen if you encountered some setbacks. However, you also want to be able to get back to your current projection.

Well, this is all possible in Microvision!

Tip

A certain situation can be fixed into a **scenario**. After that, you can change your current data endlessly. Data of a fixed scenario can always be retrieved.

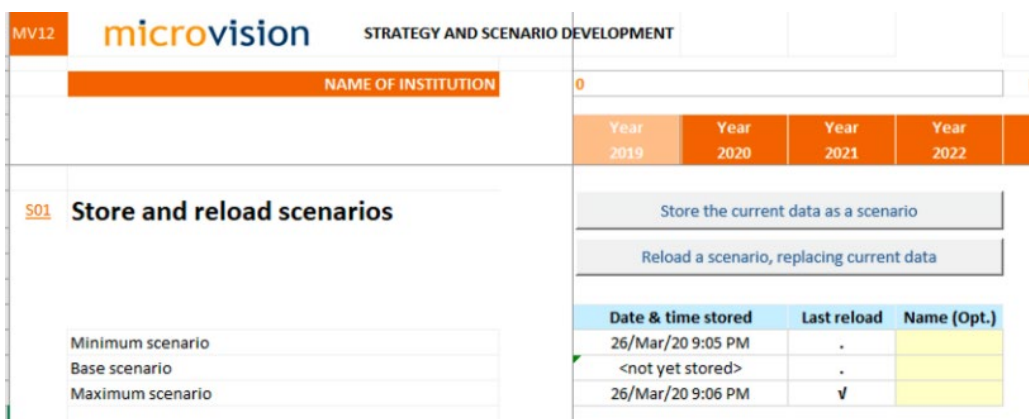
Imagine that you fix your current data into a base scenario. Afterwards, you can change the current data with the setback information and fix it into a minimum scenario. In the graphs on the Graphs sheet, you can compare both projections: they show the key financial and social indicators of the base scenario and minimum scenario. In the end, you can recall data of your base scenario to share or modify it.

Attention

Your current data are the (only) data that are used throughout the Input Sheets and in Output Reports.

5.1 Store a scenario

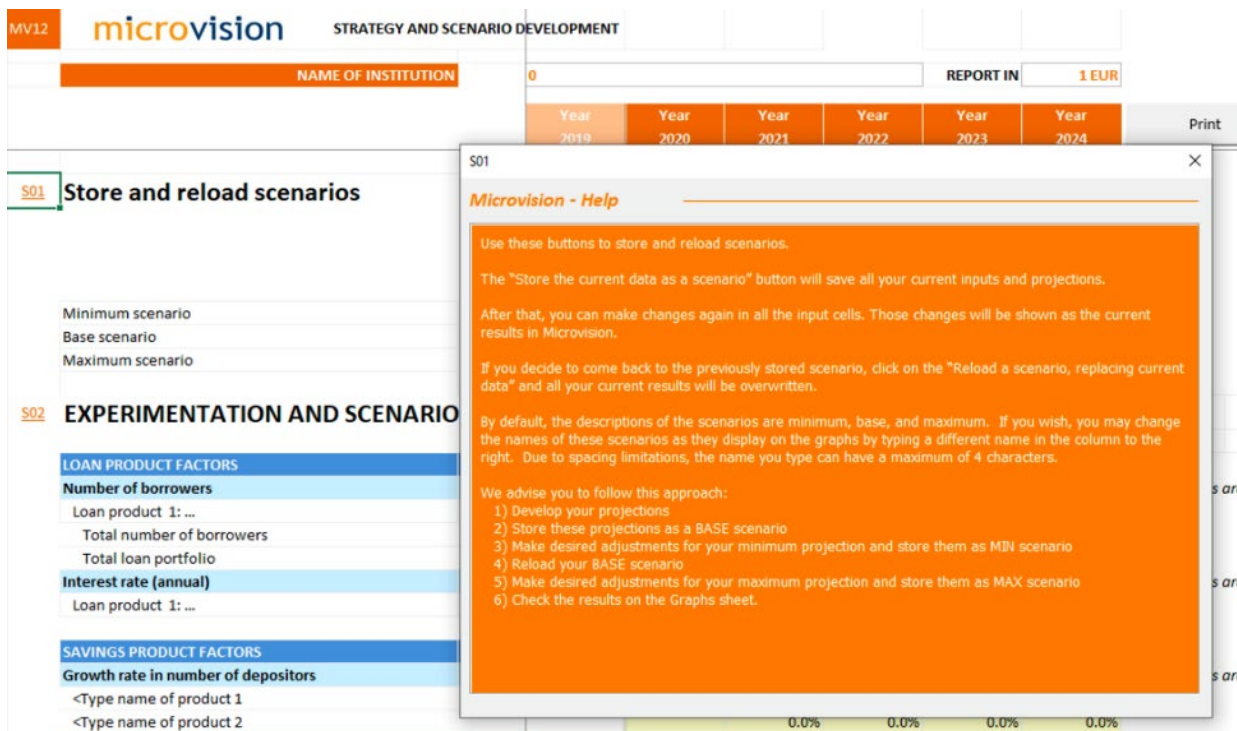
The top section of the Strategy sheet provides you with the tools to store and reload scenarios as well as showing you a history of when your scenarios were stored and most recently reloaded into current data.



| Year | Year | Year | Year | R |
|------|------|------|------|---|
| 2019 | 2020 | 2021 | 2022 | |

| Date & time stored | Last reload | Name (Opt.) |
|--------------------|-------------|-------------|
| 26/Mar/20 9:05 PM | . | |
| <not yet stored> | . | |
| 26/Mar/20 9:06 PM | ✓ | |

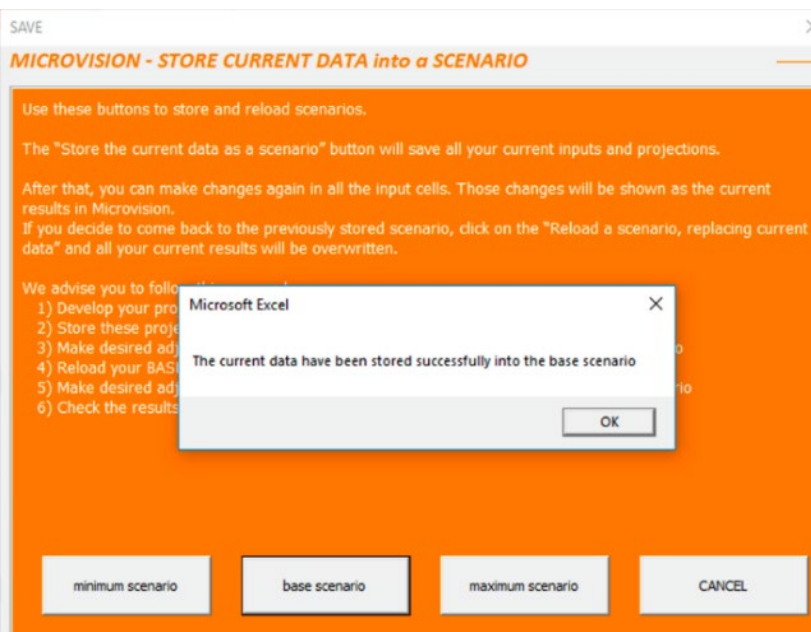
First, you'll need to load a scenario. Your first effort is likely to be your baseline scenario. To store this information, click on the "store" button and a pop-up window will appear:



The text describes the process of how to store and reload data. You can choose to fix your current data into either the minimum, base or maximum scenario.

Click the corresponding button (minimum scenario, base scenario or maximum scenario). Usually, the fixing will proceed quickly and you will see a progress-box appear.

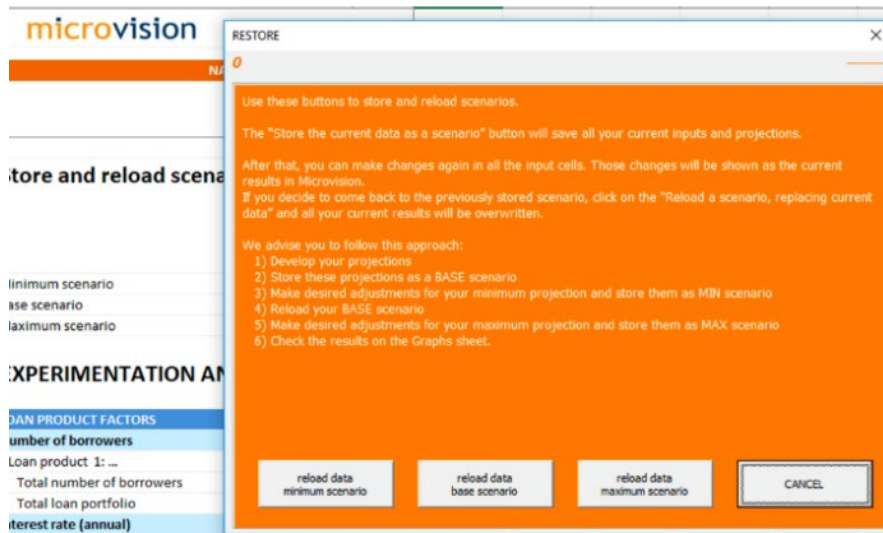
When finished, the following message is shown:



You can then make adjustments in various inputs such as the growth rate for products, the prices of your products, or alternative funding options. You can consider the situation that would result in a minimum (or “worst-case”) scenario and then store that information. You can also prepare an optimistic set of assumptions and store that as a maximum (or “best-case”) scenario.

5.2 Reload a scenario

If you have set all scenarios and you want to work again with the data of any stored scenario, you can click on the Reload a Scenario button at the top of the Strategy sheet. A pop-up window will appear:



Click on the appropriate button. The procedure of setting your data back will start. This procedure will usually be quite fast and when completed, a message is shown.

6 Printing results

Each sheet in Microvision has a PRINT button that you can use to print (or create a PDF) of the contents of that worksheet.

At the bottom of every printed page, you can find **date, hour, name of the Microvision-file, name of the sheet and page number.**

7 FAQ - FREQUENTLY ASKED QUESTIONS

Please visit the online FAQ of Microvision:

- Go to www.microfact.org
- Click MFI TOOLS in the menu
- Click Microvision in the menu
- Click FAQ in the menu.

If the problem persists after reading the FAQ, please contact the support section of microfact.org:

- Go to www.microfact.org
- Click MFI TOOLS in the menu
- Click Microvision in the menu
- Click SUPPORT and fill out the form.

Item reference

For more information on any Microvision item, you can double click the corresponding orange **Item Reference** in column A.

I have macros enabled, but I still get the “enable macros” message

Occasionally, this situation can occur. The solution is simple:

- Go to your Excel macro settings, enable macros.
- Save Microvision
- Close all Excel files
- Reopen Microvision

Now, you should get Microvision opened on the Identification Sheet.

Where are principal due and interest received calculated? Sometimes when I change some value, a progress window shows for 1 or 2 seconds. Why is that?

Because of the complexity, principal due and interest received are calculated behind the screens. If you change a value that influences principal due or interest received, they need to be recalculated on the Loan Details sheet. This recalculation takes some time and that’s why the progress window pops up.

The cells that need recalculation of principal due and interest received when they are changed, are the following:

- Loan Products: loan amounts, term, pricing, retention rate
- Loan Portfolio: loan amounts, term, growth rates, retention, write-off
- Income: pricing, insurance coverage percentage
- Seasonality: any monthly changes to growth

How do I introduce a new loan product in the five-year plan?

It may be that you plan to introduce new loan products in the five-year plan. You do so by first adding that product on the Loan Products sheet. Then on the Loan Portfolio sheet, you can enter figures in the appropriate year. You can, for convenience, indicate loan amounts and pricing information in Year 0 or Year 1, even though the loan product isn’t marketed until a future year. The only figures that affect your financials are when you have borrowers receiving loans and paying interest and fees on those loans.