

FINPLAN

Hands-on 6: Setting up a case study for a single combined cycle power plant

Useful references:

- 1) [Download the FINPLAN software](#)
- 2) [Introduction to FINPLAN](#)
- 3) [Glossary of Financial Terms](#)
- 4) [Completed Hands-on 6 case study \(**before** financially balancing the case study\)](#)
- 5) [Completed Hands-on 6 case study \(**after** financially balancing the case study\)](#)
- 6) [Video Tutorials](#)
- 7) [FINPLAN Google Group](#)

Learning outcomes

This exercise will help you obtain some hands-on experience on how to use the FINPLAN interface by creating a complete case study to analyze the financial viability and structure of power projects.

In this exercise, you will learn how to set up and assess a single combined cycle power plant.

By the end of this exercise, you will be able to:

1. Set up a new case study in FINPLAN and interpret the results
2. **Adjust a case study to be financially balanced**
3. Export FINPLAN results
4. Check Intermediate results
5. Create the Cash Flow Statement
6. Check the Operating Account
7. Check the Balance Sheet
8. Calculate Financial Ratios
9. Estimate the Shareholder's Return

Activity 1

Set up a new case study in FINPLAN

Background information, economic and financial data on the power plant are below.

Background information

A utility would like to assess the financial viability of a single combined cycle power plant from 2015 – 2040, financed with a mix of equity and debt instruments in both local currency and US Dollars. After a construction time of 3 years, the 300 MW plant will generate 2,000 GWh from imported gas from 2020 onwards until the end of its lifetime in 30 years. The plant will cost 300 million USD, with expenditures distributed 25%, 50% and 25% over the construction time. A debt-to-equity rate of around 70:30 is envisaged. It is depreciated linearly over 20 years. Electricity can currently (2015) be sold at 0.24 local currency units (LC) per kWh, increasing with inflation. O&M costs are expected to amount to 29.44 million LC. Gas import costs amount to 109 million USD.

Economic information

- Inflation USD: 1%
- Inflation Local Currency: 5%
- Exchange rate: 3 units of local currency per USD for 2014, 3.2 for 2015; exchange rate reflects inflation rates
- Income tax: 20%, losses to be carried forward, no losses in start year.

Financial information

- Initial Balance Sheet: 80 million as short-term deposits; 80 million equity
- Sources of financing - USD: 60% export credit over 12 years with uniform principal and interest repayment at an interest rate of 5.5%.
- Equity: 80 initially, 100 million LC in 2017 and 130 million in 2019. No limit to dividends being paid out.
- New Commercial Loans: 60 mil. USD in 2018, 10 mill. in 2019, over 8 years, interest: 3% over inflation
- Bonds: 10 million USD in 2018 over 5 years. Expected rate: 5%
- Short term deposits: interest rate -1% over inflation
- Stand-by facility: interest rate 4% over inflation.



- Shareholder's targeted return data: disposal year 2040 (in which the assets are assumed to be sold), discount rate: 6%
- Terms of project finance loan: 6% discount rate (to calculate the net present value of the cash available in the future), 12 years average loan term, 1.4 security ratio for loan period, 30 years expected life, 1.6 security ratio for project life, 2020 first year of debt service

There is a lot of data to go through, but **don't worry** – this hands-on will guide you to input all the data from above.

First, we need to create a new case study on FINPLAN. From the **background information** section, we know a few things about the project to create a new case study.

Try it:

1. Create a new case study and name it "CCGT Demonstration".

A screenshot of the "Create new case study" form in the FINPLAN software. The form has a title "Create new case study" at the top. Below it, there is a text input field containing "CCGT Demonstration". Underneath that, there is a description field with the text "Hands-on 6 case study on a single combined cycle power plant." and a small edit icon (two diagonal lines) to its right. At the bottom of the form is a green button labeled "Create case study".

2. Fill in the "New Case Study" page with information from the background information paragraph. Reading through it, we know the following:
 - a. Starting year: 2015
 - b. Ending year: 2040
 - c. Study type: Single plant
 - d. Local currency: Local currency
 - e. Foreign currency: US Dollar
3. Don't forget to "Save".



General information

Name of the case study
CCGT Demonstration

Start year
2015

End year
2040

Study type
Single Plant

Case description
Hands-on 6 case study on a single combined cycle power plant.

Local Currency
Local Currency

Foreign Currencies (Drag & Drop)
Looking for
Local Currency
Afghanistan Afghani
Albanian Lek
Algerian Dinar
Angolan Kwanza
Angolan New Kwanza
Argentine Peso
Armenian Dram
Aruban Florin
Australian Dollar

US Dollar

Now, we need to add information for the remaining Case Data (General Data, Taxation Data, etc.). Remember to save your data after each step!

Case data

General data

Taxation data

Initial balance sheet

Sales and purchase data

Plant data

Financial manager

Try it:

1. In the “Inflation Information” tab, enter the inflation values for both US Dollar and Local Currency. Follow the information from the **economic information** section.

General information **Inflation information** Currency exchange rates

Inflation information

US Dollar (%)
☒ Steady Rate 1
☐ Yearly Input

Local Currency (%)
☒ Steady Rate 5
☐ Yearly Input

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	US Dollar (%)	Local Currency (%)
2015		
2016		
2017		

- In the next page, "Currency exchange rates", input the data for Local Currency (US Dollar) for the years 2014 and 2015.
- Tick the "Exchange Rate Reflects Inflation Rates box", as this is also instructed in the **economic information** section at the top of the document.

General information Inflation information **Currency exchange rates**

Currency exchange rates

Local Currency (US Dollar) (%)
☐ Steady Rate
☒ Exchange Rate Reflects Inflation Rates
☐ Yearly Exchange Rate

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	Local Currency (US Dollar)
2014	3.000
2015	3.200
2016	
2017	

- Click on "Taxation data" from the menu pane, add in the values for "Tax and depreciation information" following the **economic information** section.
- We will leave the "Declining Balance Depreciation Rate for Assets of 2014" and "Value Added Tax" sections **blank** as we were not provided with this information in the description of this case study at the beginning of Activity 1.

Manage case studies

En Es Fr

Case data

- General data
- Taxation data**
- Initial balance sheet
- Sales and purchase data

Plant data

Financial manager

Calculate

Intermediate results

Tax and depreciation information Royalty payment

Tax and depreciation information

Declining Balance Depreciation Rate for Assets of 2014 (%)

Value Added Tax

☐ VAT on Investment VAT Rate for Investment (%) % of Investment

Income Tax

☒ Tax Loss should be carried forward Loss in Start Year (Million) 0 Tax rate ☐ Yearly Input ☒ Steady Rate (%) 20

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	Tax rate (%)
2015	
2016	

6. Now click on “Initial Balance Sheet” from the menu pane. “Assets & Liabilities” should come up. Input the data for Short Term Deposits and Equity from the **financial information** section. This section tells us that short-term deposits and equity are both at 80 million.

7. We will leave the rest empty as we were not provided with more information.

En Es Fr

Manage case studies

En Es Fr

Case data

- General data
- Taxation data
- Initial balance sheet**
- Sales and purchase data

Plant data

Financial manager

Calculate

Intermediate results

Assets and liabilities Old commercial loans Old bonds data Committed investment data

Assets and liabilities

Assets		Equity and Liabilities	
Gross Fixed Assets		Equity	80
Less: Accumulated Depreciation		Retained Earning	
Less: Accumulated Consumer Contribution		Net Bonds Outstanding	
Net Fixed Assets		Net Loans Outstanding	
Work in Progress		Consumer Deposits	
Receivables (including VAT)		Current Maturity	
Short Term Deposits	80		

8. Now go to “Sales and purchase data” on the left menu pane. This will take you to “Sales Data”. Click on the + symbol to add data.

Manage case studies

En Es Fr

Case data

- General data
- Taxation data
- Initial balance sheet
- Sales and purchase data**

Sales data

Purchase data Consumers contribution and deposits Fixed revenues and other income

Product name and units	Client	Currency	Quantity	Price for first year

9. From the **background information** section, we know that:
- The power plant will be selling **electricity** for a client.
 - Electricity can currently (2015) be sold at **0.24 Local Currency** units per kWh.
 - Prices will **increase** with inflation.
 - The plant will generate **2,000 GWh** from **2020** onwards.
10. Fill the above information in their respective boxes. We will name the client “**Utility**” for this case study.
11. To represent a price increase with inflation, we will input **0** into the “Standard Change in Addition to Inflation” box. This will ensure the value is increasing with inflation.

Details

Product name and units: Electricity (GWh) Client: Utility Currency: Local Currency

Quantity: ☒ Yearly data ☐ Fixed

Price for first year (Per kWh): 0.24

Price: ☐ Yearly current price ☐ Yearly price change in addition to inflation (%) ☒ Standard change in addition to inflation (%)

0

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	Quantity	Standard change in addition to inflation (%)
2015		
2016		
2017		
2018		
2019		
2020	2,000,000	
2021		

Well done! You have now added in all the Case Data.



We now must add in Plant Data.

Try it:

1. Click on “Plant Data” from the menu pane. Now click on the + symbol to add in data.

manage case studies

En Es Fr

Case data

- General data
- Taxation data
- Initial balance sheet
- Sales and purchase data
- Plant data**

Plant data

+ Name Plant type Status Ownership Unit size First operational year Construction period Plant life in years Product type

2. Name your plant. For this case study, let's go with “CCGT”.
3. From the **background information** section, we know the following information:
 - a. Plant type: **Imported gas**
 - b. Status: **Future**
 - c. Ownership: **Utility**
 - d. Unit size: **300 MW**
 - e. First operational year: **2020**
 - f. Construction time: **3 years**
 - g. Lifetime: **30 years**
 - h. Product: **Electricity**
4. Add the above information accordingly.

Plant details

Name
CCGT

Plant type
Gas (Imported)

Status
Future

Ownership
Utility

Unit size (MW)
300

First operation year
2020



Construction period
3

Plant life in years
30

Product
☒ Electricity
☐ Heat
☐ Water
☐ CO2

- Now click on the pencil icon to add more information on the plant (plant data, plant production, O&M costs etc.).

Plant data

	Name	Plant type	Status	Ownership	Unit size	First operational year	Construction period	Plant life in years	Product type	
	CCGT	Gas (imported)	Future	Utility	300	2020	3	30	E	

- Enter the amount of electricity the power plant will generate in “Plant production”. You can find this in **background information**.

Plant production

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	Electricity (GWh)
2020	2,000,000
2021	
2022	

- Go to “O&M costs”. Fill in the associated O&M cost following the **background information**.

Operation & Maintenance costs

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	US Dollar (Million)	Local Currency (Million)
2020		29,440
2021		
2022		

- Go to “Fuel cost”. Now fill in the associated fuel cost following the **background information**.

Plant data	Plant production	O & M costs	Fuel cost	General expenses data	Investments	Sources of financing	Depreciation	Decommissioning
------------	------------------	-------------	------------------	-----------------------	-------------	----------------------	--------------	-----------------

Fuel cost information
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A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	US Dollar	Local Currency
2020	109.000	
2021		
2022		

9. We will skip “General expenses data” as we have no information on this.
10. Now we need add in information on investments. Click on “Investments”.
11. Complete this section. You will find the input values in the **background information** section.

Plant data	Plant production	O & M costs	Fuel cost	General expenses data	Investments	Sources of financing	Depreciation	Decommissioning
------------	------------------	-------------	-----------	-----------------------	--------------------	----------------------	--------------	-----------------

Investment cost in constant prices
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US Dollar (Million)

Local Currency (Million)

Inflation will be applied to investment costs

Year	US Dollar (% distribution)	Local Currency (% distribution)
1:2016	25.000	
2:2017	50.000	
3:2018	25.000	

12. Now go to “Sources of financing”. Click on “US Dollar” in the drop-down box.
13. Fill in this page following the **financial information**.

Plant data	Plant production	O & M costs	Fuel cost	General expenses data	Investments	Sources of financing	Depreciation	Decommissioning																				
<div> <div>Sources of financing</div> <div> <div>US Dollar</div> <div> <input checked="" type="checkbox"/> Export Credit 1 Terms of financing <input type="checkbox"/> Export Credit 2 <input type="checkbox"/> Project Loans </div> </div> <table border="1"> <thead> <tr> <th>Year</th> <th>Constant Prices (Million)</th> <th>Export Credit 1</th> <th>Export Credit 2</th> <th>Project Loans</th> </tr> </thead> <tbody> <tr> <td>1:2016</td> <td>75.000</td> <td>60.000</td> <td></td> <td></td> </tr> <tr> <td>2:2017</td> <td>150.000</td> <td>60.000</td> <td></td> <td></td> </tr> <tr> <td>3:2018</td> <td>75.000</td> <td>60.000</td> <td></td> <td></td> </tr> </tbody> </table> </div>									Year	Constant Prices (Million)	Export Credit 1	Export Credit 2	Project Loans	1:2016	75.000	60.000			2:2017	150.000	60.000			3:2018	75.000	60.000		
Year	Constant Prices (Million)	Export Credit 1	Export Credit 2	Project Loans																								
1:2016	75.000	60.000																										
2:2017	150.000	60.000																										
3:2018	75.000	60.000																										

14. Now we move on to “Terms of financing”. Click on this box, underneath “Export Credit 1”.

US Dollar	<input checked="" type="checkbox"/> Export Credit 1 <div>Terms of financing</div> <input type="checkbox"/> Export Credit 2 <input type="checkbox"/> Project Loans
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15. Fill in the values by following the **financial information** at the top of this document.

Terms of financing	
Total amount in constant prices (Million)	180
Term (years)	12
Repayment option	<input type="radio"/> Uniform (P) <input checked="" type="radio"/> Uniform (P+I)
Interest Option	<input checked="" type="radio"/> Constant <input type="radio"/> Floating
Interest rate (%)	5.5
Spread above the inflation (%)	
Fees (exposure fee, commitment fee, etc.)	
<input type="checkbox"/> One time initial (Millions)	
<input type="checkbox"/> Paid upfront (%)	
<input type="checkbox"/> Paid as drawdown (%)	
IDC financing option	<input type="radio"/> Yes <input checked="" type="radio"/> No
Loan for IDC (% of IDC)	
Term (years)	
Interest rate (%)	
Repayment option	<input type="radio"/> Uniform (P) <input type="radio"/> Uniform (P+I)

16. Now we move to Depreciation Data & Decommissioning. Click on “Depreciation”.

17. Fill in the depreciation information from the **background information**.

Depreciation

☒ Linear

Number of years

☐ Sum of the years digits

Number of years

☐ Declining balance

Depreciation rate (%)

☐ Declining switching to linear

Number of years

Depreciation rate (%)

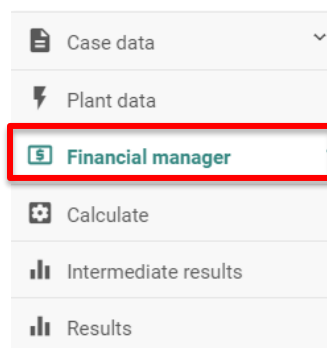
18. We will leave “Decommissioning” empty as we do not have information on this.

Well done! You have now inputted all Plant Data.

We will now have to move on to the Financial Data i.e., “Financial manager” tab.

Try it:

1. Click on the “Financial manager” tab on the left menu pane. The first page will be on “Equity”.



2. From the **financial information** section, we know that there is no limit to dividends being paid out. Therefore, we will put in a large number i.e., 999 for “Maximum Dividend”. This large number will ensure that whatever profit is made will be released in the form of dividends.
3. From the **financial information** section, add in the values for equity.

Equity



Local Currency (Million)

Maximum dividend (%)

999

Initial equity

80

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	Equity	Equity returned
2015		
2016		
2017	100.000	
2018		
2019	130.000	
2020		
2021		

- Now go to the next page, "New commercial loans".
- Follow the **financial information** and input the values for new commercial loans.

Equity

New commercial loans
New bonds
Other financial data

New commercial loans

US Dollar (Million)

Interest spread above Inflation (%)

3

Term (Year's)

8

Local Currency (Million)

Interest spread above Inflation (%)







Term (Year's)

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	US Dollar - Drawdown (Million)	Local Currency - Drawdown (Million)
2015		
2016		
2017		
2018	60.000	
2019	10.000	
2020		
2021		

- Now go to "New Bonds".
- Follow the **financial information** and input the values for bonds.

Equity New commercial loans **New bonds** Other financial data

New bonds |  |  |  |  |  | 

US Dollar (Million)

Expected Rate (%)

Bonds Term (Year's)

Local Currency (Million)


Expected Rate (%)

Bonds Term (Year's)

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	US Dollar - Issued (Million)	Local Currency - Issued (Million)
2015		
2016		
2017		
2018	10.000	
2019		

8. Now go to the next page, "Other financial data".
9. Fill in the first box, "Other financial data", from the **financial information** section.
10. As we are not given information on "Short Loans", we will input this as 0.


Other financial data 

Spread for short term deposits (%) above local inflation

Spread for stand-by facility (%) above local inflation

Short loans outstanding initial (Million Local Currency)

11. Fill in the second box, "Shareholders' return data".
12. Input the values as shown in the **financial information** section.

Shareholders' return data 

Disposal year

Discount rate

13. Now go to "Terms of project finance loan".
14. Input the values as shown in the **financial information** section.

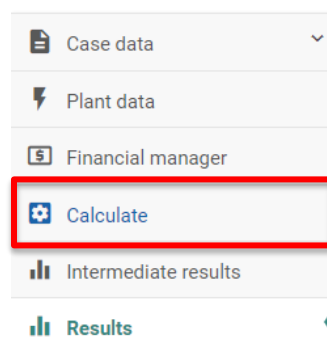
Terms of project finance loan	
Discount rate	6
Average loan term (years)	12
Security ratio for loan period	1.4
Expected life of project (years)	30
Security ratio for project life	1.6
First year of cash to debt service	2020

Well done! You have now added in all the financial data on FINPLAN.













Now we need to run our model and read our results.

Try it:

1. Click on “Calculate”.



2. Once results are generated, click on “Cash inflows and outflows in local currency” from Results.

1. Results	
1.1. Operating account in local currency	 
1.2. Cash inflows and outflows in local currency	 
1.3. Balance sheet in local currency	 
1.4. Shareholders' return in local currency	 
1.5. Financial ratios	 
1.6. Project finance analysis in local currency	 

3. Ensure that the power plant is under construction at the correct time. To double-check, make sure that there are values for "Investment" from 2017 to 2019. Also double-check that "Sales" only appear after the year 2019.

Cash inflows and outflows in local currency								
Million	2015	2016	2017	2018	2019	2020	2021	
Cash available in short term deposits (at end of previ...	80.000	80.000	80.000	68.301	76.196	53.322	51.084	
Inflows								
Revenues	0.000	0.000	0.000	0.000	0.000	612.615	643.246	
Fixed revenues	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Sales	0.000	0.000	0.000	0.000	0.000	612.615	643.246	
Others	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Interest earned	3.200	3.200	3.200	2.732	3.048	2.133	2.043	
New equity	0.000	0.000	100.000	0.000	130.000	0.000	0.000	
Bonds issue	0.000	0.000	0.000	35.996	0.000	0.000	0.000	
Loans drawdowns	0.000	0.000	155.750	539.935	205.895	0.000	0.000	
Stand-by facility	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Total inflows	3.200	3.200	258.950	578.662	338.943	614.748	645.289	
Flow from short term deposits	0.000	0.000	11.699	0.000	22.874	2.239	0.039	
Total cash available	3.200	3.200	270.650	578.662	361.817	616.987	645.328	
Outflows								
Investment	0.000	0.000	267.450	561.858	295.088	0.000	0.000	

4. Check the Cash Available in Short Term Deposits. As a short-term deposit has a low interest rate, it should be emptied as quickly as possible. However, our results show that this is not the case: cash is available throughout.

Cash inflows and outflows in local currency

Million	2015	2016	2017	2018	2019	2020	2021
Cash available in short term deposits (at end of previ...	80.000	80.000	80.000	68.301	76.196	53.322	51.084
Inflows							
Revenues	0.000	0.000	0.000	0.000	0.000	612.615	643.246
Fixed revenues	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sales	0.000	0.000	0.000	0.000	0.000	612.615	643.246

5. Check the Stand-by facility. It should be rarely used. This is the case.
6. Check flows from the Short Term Deposits. As mentioned, it should be emptied as soon as possible. However, we can see that there are substantial Flows from the Short Term Deposits during several years.

Million	2015	2016	2017	2018	2019	2020	2021
Cash available in short term deposits (at end of previ...	80.000	80.000	80.000	68.301	76.196	53.322	51.084
Inflows							
Revenues	0.000	0.000	0.000	0.000	0.000	612.615	643.246
Fixed revenues	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sales	0.000	0.000	0.000	0.000	0.000	612.615	643.246
Others	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Interest earned	3.200	3.200	3.200	2.732	3.048	2.133	2.043
New equity	0.000	0.000	100.000	0.000	130.000	0.000	0.000
Bonds issue	0.000	0.000	0.000	35.996	0.000	0.000	0.000
Loans drawdowns	0.000	0.000	155.750	539.935	205.895	0.000	0.000
Stand-by facility	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total inflows	3.200	3.200	258.950	578.662	338.943	614.748	645.289
Flow from short term deposits	0.000	0.000	11.699	0.000	22.874	2.239	0.039
Total cash available	3.200	3.200	270.650	578.662	361.817	616.987	645.328

7. From the results above, we can conclude that this case study is **not balanced**. We have too much cash available. We added new equity and new bonds in this case study, which could be an explanation as to why we have too much money.

Activity 2

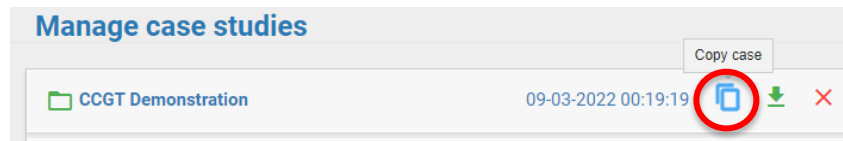
Adjust a case study to be financially balanced

We need to adjust the input data for the CCGT case study so that it is financially balanced.



Try it:

1. Create a **copy** of your “CCGT Demonstration” case study and name it “**CCGT Demonstration - Balanced**”. You can rename it in General data > General information. We will use this new file to make some changes.



2. **2017:** Looking at our results, cash is available in the Short-Term Deposit in 2017, yet further equity is injected, which is not required. The equity should therefore be reduced to **30 million LC** in **2017** and results should be recalculated.

Equity Bar chart icon Left arrow Right arrow Download icon Save icon Help icon

Local Currency (Million)
Maximum dividend (%)
999

Initial equity
80

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	Equity	Equity returned
2015		
2016		
2017	30.000	
2018		
2019	130.000	
2020		

3. **2018:** The high Debt Equity Ratio of ~0.9 in 2018 (check this under Results > Financial ratios) may not be acceptable to a lender. Furthermore, the capital markets may only be accessible once the plant has been in operation. Therefore, the 10 million USD bond issued in 2018 should be **removed**. The commercial loan in 2018 should also be reduced to **30 million USD**. The missing amount of equity for 2018 should be replaced with **140 million LC**. This also improves the debt equity ratio during construction.



New bonds



US Dollar (Million)		Local Currency (Million)	
Expected Rate (%)	5	Expected Rate (%)	
Bonds Term (Year's)	5	Bonds Term (Year's)	

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	US Dollar - Issued (Million)	Local Currency - Issued (Million)
2015		
2016		
2017		
2018	0.000	
2019		
2020		

New commercial loans



US Dollar (Million)		Local Currency (Million)	
Interest spread above Inflation (%)	3	Interest spread above Inflation (%)	
Term (Year's)	8	Term (Year's)	

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	US Dollar - Drawdown (Million)	Local Currency - Drawdown (Million)
2015		
2016		
2017		
2018	30.000	
2019	10.000	
2020		

Equity



Local Currency (Million)	
Maximum dividend (%)	999
Initial equity	80

A value entered for one year will also be applicable for subsequent years, until a new value is entered for a future year.

Year	Equity	Equity returned
2015		
2016		
2017	30.000	
2018	140.000	
2019	130.000	
2020		

4. When looking at the results after recalculating, our short-term deposit is emptied as soon as possible, i.e., in the first year of construction. Also the stand-by facility is barely used compared to the overall investment costs and our financial ratios have improved. Our debt service coverage ratio is still quite low, which we accept for the time being. We assume that this is not our only project and that we have cash reserves available within our company. In reality, we would of course have to demonstrate to the financiers that this cash is available and reserved for this project. (Alternatively, we could increase the equity or debt further to have extra cash available, but this would just end up in the short-term deposit at a low interest rate. Further, we could of course increase the electricity price if this was a realistic option.)

Cash inflows and outflows in local currency									
Million	2015	2016	2017	2018	2019	2020	2021		
Cash available in short term deposits (at end of previ...	80.000	80.000	80.000	0.000	0.000	0.000	9.449		
Inflows									
Revenues	0.000	0.000	0.000	0.000	0.000	612.615	643.246		
Fixed revenues	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Sales	0.000	0.000	0.000	0.000	0.000	612.615	643.246		
Others	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Interest earned	3.200	3.200	3.200	0.000	0.000	0.000	0.378		
New equity	0.000	0.000	30.000	140.000	130.000	0.000	0.000		
Bonds issue	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Loans drawdowns	0.000	0.000	155.750	431.948	205.895	0.000	0.000		
Stand-by facility	0.000	0.000	1.699	0.000	5.580	0.000	0.000		
Total inflows	3.200	3.200	190.650	571.948	341.475	612.615	643.624		
Flow from short term deposits	0.000	0.000	80.000	0.000	0.000	0.000	0.000		
Total cash available	3.200	3.200	270.650	571.948	341.475	612.615	643.624		
Outflows									
Investment	0.000	0.000	267.450	561.858	295.088	0.000	0.000		

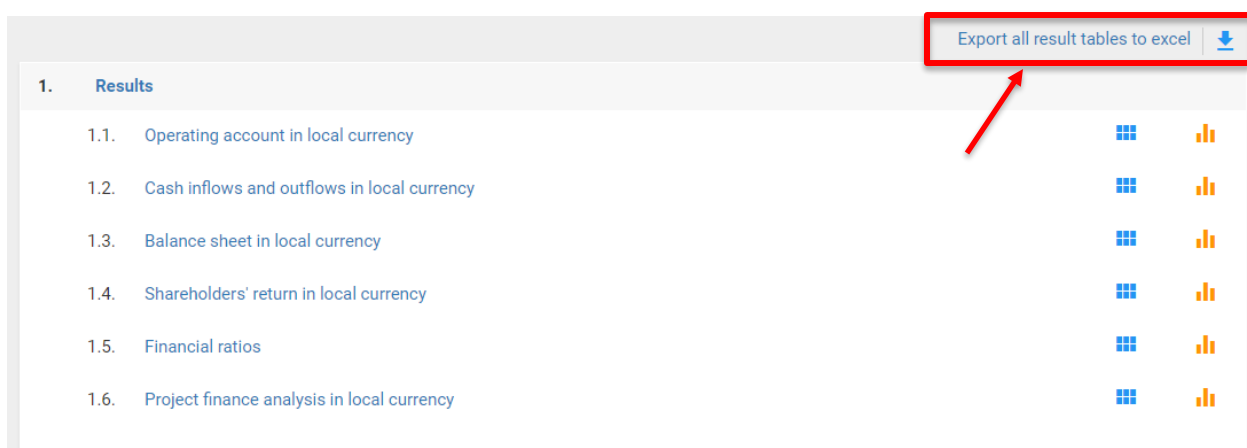
Well done! You now know how to adjust data to achieve a balanced financial model.

Activity 3













Export FINPLAN results

It will be easier to compare results if you export them to Excel. It is also suggested that you then print out the Operating Account, the Cash Inflows and Outflows and the Balance Sheet.

You can do this by clicking on “Results” and the “Export all ...” button in the top right corner.



The screenshot shows the 'Results' section of the FINPLAN interface. The 'Export all result tables to excel' button is highlighted with a red box and a red arrow. The results are listed as follows:

1. Results		
1.1. Operating account in local currency		
1.2. Cash inflows and outflows in local currency		
1.3. Balance sheet in local currency		
1.4. Shareholders' return in local currency		
1.5. Financial ratios		
1.6. Project finance analysis in local currency		

Before going through the following questions, please take some time to compare the different statements (Operating account, Cash inflows and outflows, Balance sheet) and see how they are linked. Try to think of the purpose of each of them.

Activity 4

Intermediate results

Sometimes you will look at your Financial Statements and see unexpected results. Often, the intermediate results allow you to check if the data you entered is used by FINPLAN as you expect it.

Example:

Let's say the sales are zero in the “Results – Cash inflows and outflows” throughout the project period, even though you entered an electricity price. In the intermediate results, you



can check under “Sales” what quantity of electricity is being multiplied with which electricity price, and you can maybe find out that the quantity was zero (e.g., because of forgetting to press the “save” button when entering data).

Please take some time to go through the Intermediate Results and familiarize yourself with what you find there. The following questions can be a starting point.

Activity 5

Now take your time to go through the following statements. If you are unsure about their definitions and terms used, check the section in the document ‘Introduction to FINPLAN’ explaining the results. For more detailed explanations, check the definitions on pages like [investopedia.com](https://www.investopedia.com).

- Cash Flow Statement
- Operating Account
- Balance Sheet
- Financial Ratios
- Shareholder’s Return

The questions in the online quiz will relate to these statements. It is thus suggested that you keep FINPLAN open on your computer while answering the quizzes.

Should you want to compare your results with the correct solution, simply restore the FINPLAN case using the link provided at the beginning of this document. Refer to the previous hands-on exercise to see how this is done.

Note: There is also a FINPLAN Google Group for further support. Please sign up to the group and ask or answer any FINPLAN-related questions [here](#).