



Instructions on the DFCU Forecasting Interface

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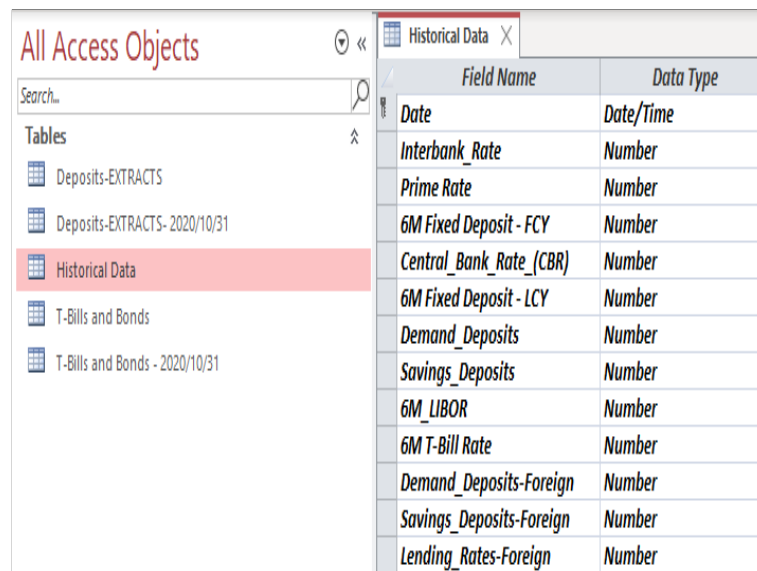
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1 Introduction

The following document contains instructions as to how the interest rate forecasting application should be navigated and used. The most important section is how the data should be imported to avoid errors (step 2). A logical step-by-step process will be provided to indicate to the user on how to obtain accurate interest rate forecasts.

1.1 Step 1

Data provided to Riskworx is situated in a MS Database server. Figure 1 and Figure 2 illustrates an example of this layout. The data should remain in this order and format at all times. Note the preview in both Figure 1 and Figure 2 are data received from November 2020. This is the data that was used to build the initial forecasting models. When the data is updated monthly, it should be taken from the initial database (more on this below).



Field Name	Data Type
Date	Date/Time
Interbank_Rate	Number
Prime Rate	Number
6M Fixed Deposit - FCY	Number
Central_Bank_Rate_(CBR)	Number
6M Fixed Deposit - LCY	Number
Demand_Deposits	Number
Savings_Deposits	Number
6M_LIBOR	Number
6M T-Bill Rate	Number
Demand_Deposits-Foreign	Number
Savings_Deposits-Foreign	Number
Lending_Rates-Foreign	Number

Figure 1: Data Provided: Design View.

Date	Interbank_Rate	Prime_Rate	6M_Fixed_Depos	Central_Bank	6M_Fixed_Dep	Demand	Savings	6M_LIBOR	6M_T-Bill_Rate	Demand_Deposits-Forei	Savings_Deposits-Fc	Lending_Rates-Foreign
2011/07/01	12.8	21.72	1.53	13.00	2.82	1.20	2.33	0.40	13.47	1.08	1.49	9.66
2011/08/01	18.1	21.31	0.47	14.00	4.31	1.20	2.29	0.43	14.39	0.95	1.49	9.79
2011/09/01	19.67	23.34	0.42	16.00	2.53	1.20	2.37	0.49	16.00	0.95	1.63	9.70
2011/10/01	23.42	23.55	0.50	20.00	2.35	1.20	2.37	0.56	18.87	0.95	1.66	9.52
2011/11/01	22.53	25.97	1.29	23.00	3.07	1.26	2.38	0.62	20.17	0.95	1.68	10.25
2011/12/01	25.37	26.71	1.38	23.00	3.28	1.19	2.31	0.75	20.06	0.95	1.74	10.08
2012/01/01	26.27	27.25	0.78	23.00	3.39	1.31	3.23	0.81	20.98	0.91	1.76	10.34
2012/02/01	16.61	26.83	3.57	22.00	3.31	1.32	3.18	0.77	16.82	0.95	1.65	10.41
2012/03/01	22.7392197125257	27.58	1.78	21.00	3.37	1.38	3.25	0.75	16.77	0.95	1.64	9.99
2012/04/01	21.12	26.14	2.13	21.00	3.74	1.65	3.30	0.73	17.36	0.95	1.54	8.23
2012/05/01	16.221642	26.66	2.52	21.00	3.47	1.42	3.28	0.73	17.54	1.01	1.50	9.32
2012/06/01	18.82	27.02	2.88	20.00	3.50	1.32	3.27	0.74	17.11	0.95	1.53	8.44
2012/07/01	13.99	26.88	3.39	19.00	3.61	1.39	3.26	0.73	16.38	0.95	1.06	8.97

Figure 2: Data Provided: Datasheet View.

1.2 Step 2

A full copy of the database needs to be exported to Excel. This is done as follows:

- Click on the date column in the database (should be column 1). This highlights the entire date column.
- On your keyboard, press CTRL+A to highlight the whole database. Now, press CTRL+C to copy the whole database onto your clipboard.
- Open a new Excel document as a blank workbook.
- Click on cell A1 and press CTRL+V. This will paste all the data from the database to your newly created Excel sheet.
- Alternatively: In the MS Database, click on the External Data tab, and under the Export section click on Excel. Provide the file with an appropriate name, and make sure to select Export data with formatting and layout (see Figure 3).
- Delete all date points in the sheet that does not contain any data. In this case it will be all the dates from 2020/12/01.
- Click on the File Tab and save this workbook as type: Excel Workbook, with an appropriate name.
- Click on the File Tab again and click on Export on the left-pane. Now, click on the option, Change File Type, and choose CSV (Comma Delimited). Next, click on Save As, to save your new CSV file with an appropriate name.

1.3 Step 3

Find the CSV file you saved above. Open up the DFCU interest rate forecasting interface. On the left-pane (sidebar) of the application below the Riskworx logo, click on browse files (see Figure 3). A window will pop-up. In this window, locate the CSV file that you have saved above (NB: This needs to be the CSV file and NOT the Excel Workbook file). Important: The CSV file needs to have a size of no smaller than 21 KB. The application can now be used.

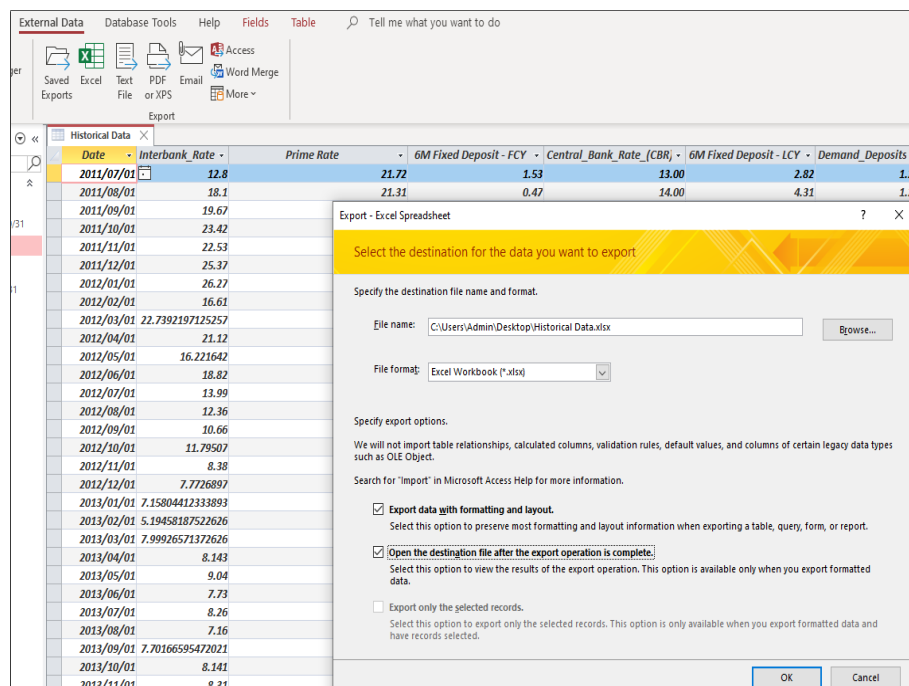


Figure 3: Exporting the Data to Excel.

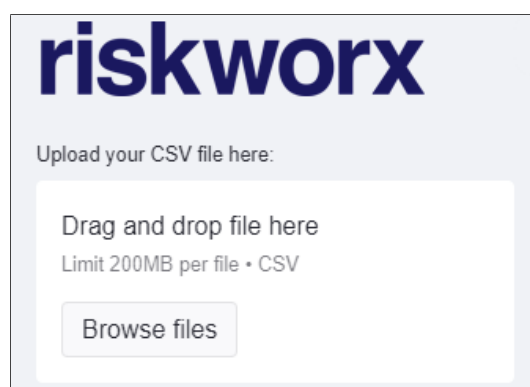


Figure 4: How to Import the Data for the Application.

2 Navigation

After the data has been imported (make sure the data has been correctly imported, see Figure 5 - the name of the dataset will show below the browse files tab), one can navigate through the models using the sidebar as indicated in Figure 5.

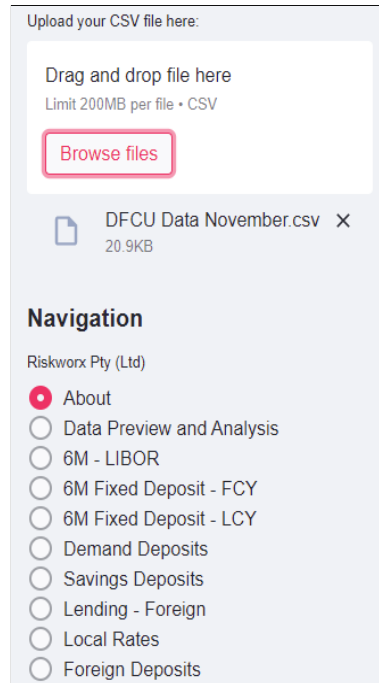


Figure 5: Navigation.

3 Downloading the Output

Important, after one has selected the number of months to forecast into the future, a download link for each forecasting model will be available. Now, click on the link (see Figure 6) and a prompt will appear. It is important to give the file an appropriate name and to include the file extension at the end of the name, that is, .csv in this case (see Figure 7). The .csv part at the end of the filename is needed for the computer to know that the downloaded file is in comma separated value form. If the user does not include this tag at the end of the name, the file will be unknown.

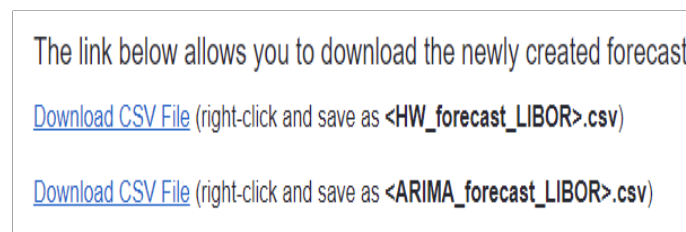


Figure 6: Download Link.

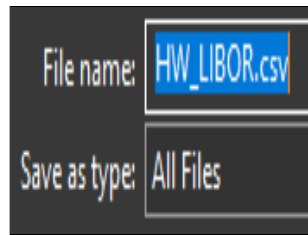


Figure 7: Saving the Output in CSV format.

4 Help

If any help is needed on the interface, use the About tab to find the contact details of the Author.