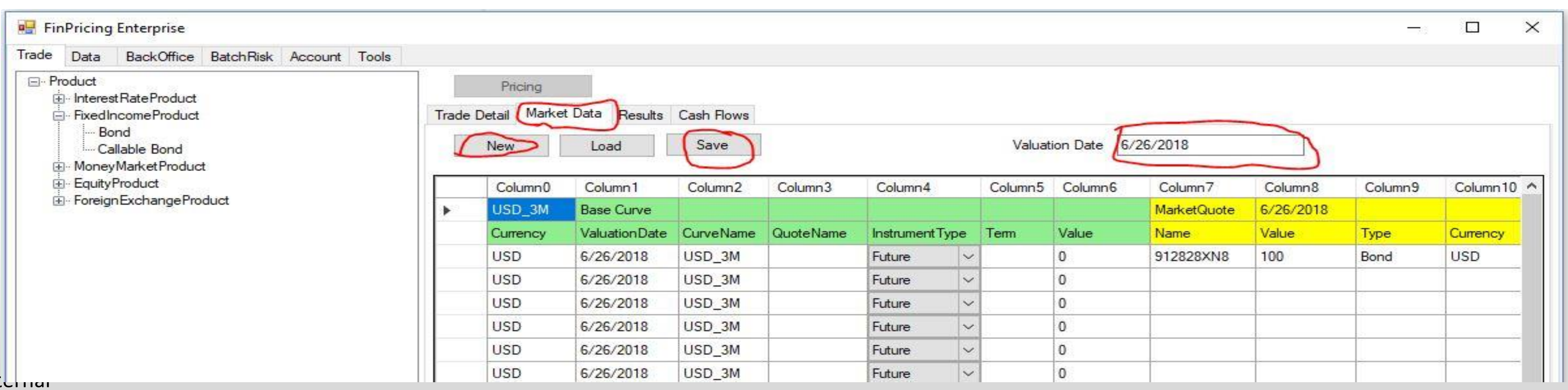
# Market Data Solution

## How to load/modify market data associated with a trade?

- In finance, market data is associated with investment instruments or trades.
- After creating a new trade or loading an existing trade, click the Market Data tab that is beside the Trade Detail tab. Then the user can either click the New button to input new market data or the Load button to extract the existing market data.
- If the user chooses to input new market data by specifying the Valuation Date and then clicking the New button, the system knows what kind of market data needed for this trade and thus generates market data templates displayed in the main window.

# How to load/modify market data associated with a trade? (Cont'd)

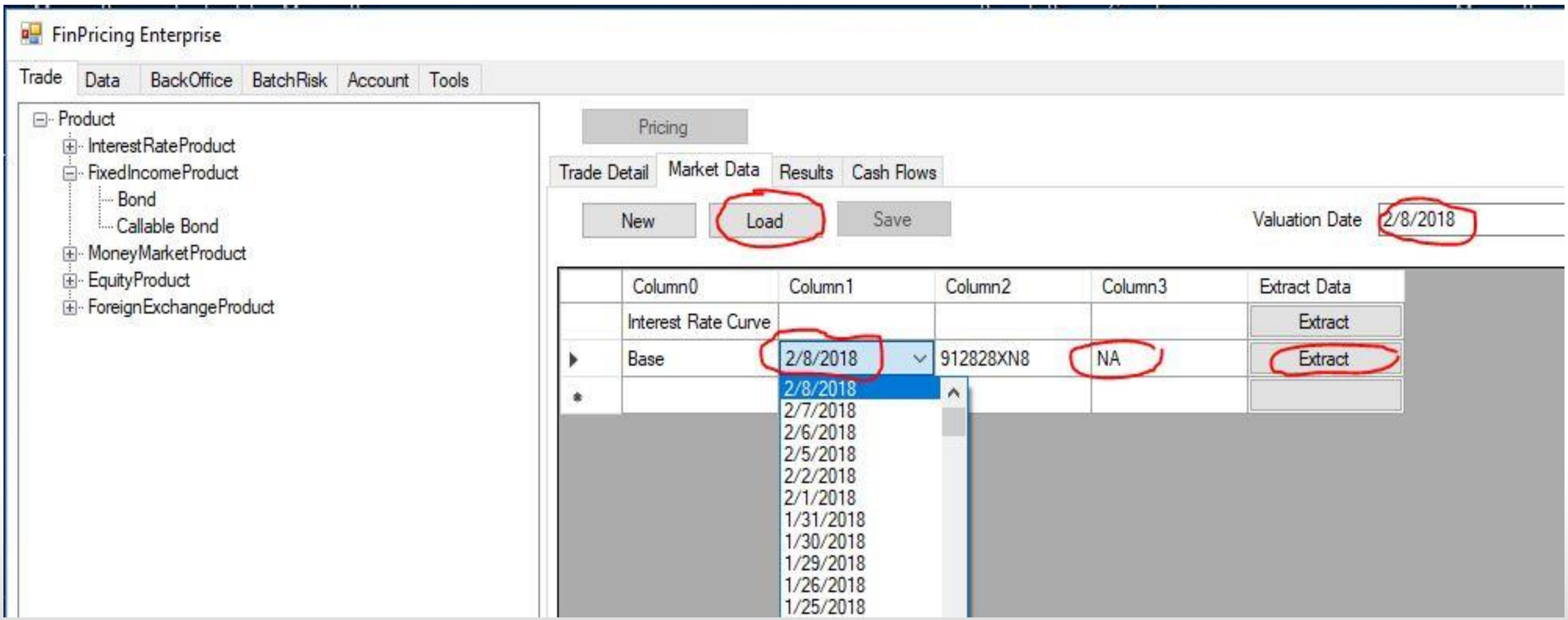
- After filling the market data and then clicking the Save button, an OK windows pops up if all data are in correct formats and value types. That means the new market data are saved into the system and ready to use.
- Please note that FinPricing provides some market data to users. However, a user feels free to modify or provide their own market data. Those new or modified market data will be private to the user.



# How to load/modify market data associated with a trade? (Cont'd)

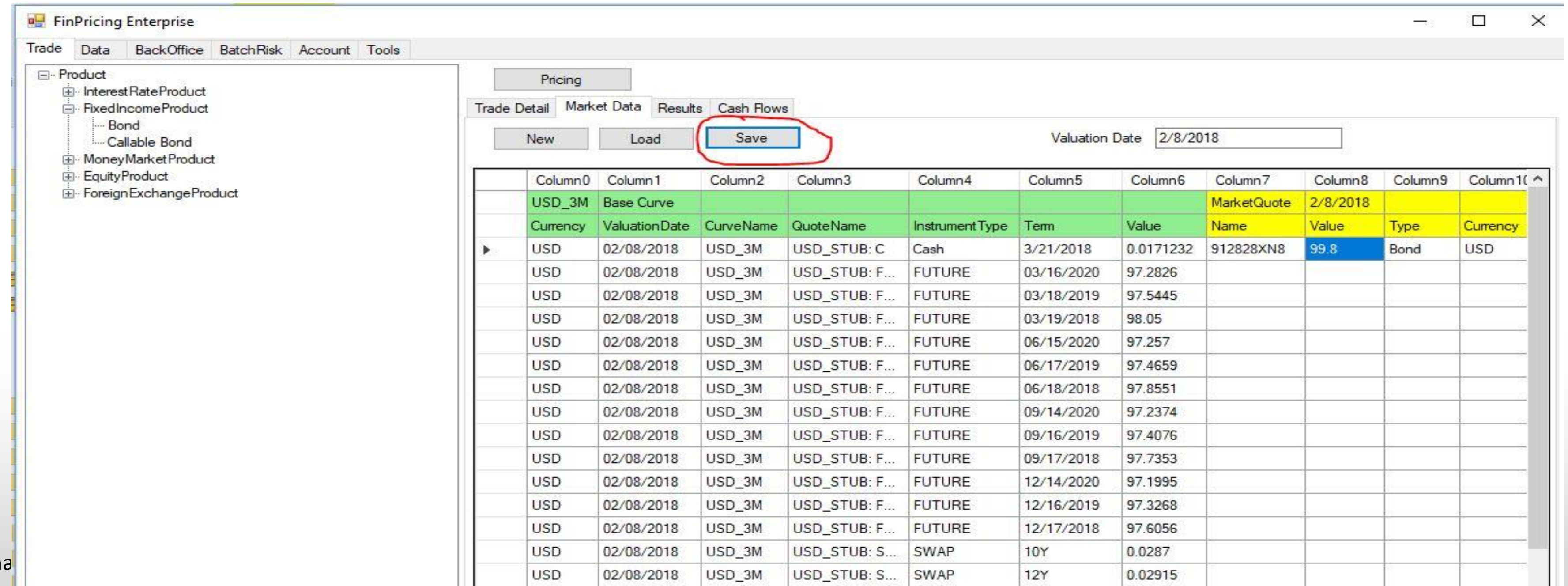
- If user chooses to load existing market data by inputting a Valuation Date (say, 2/8/2018) and then clicking the Load button, a selection form appears in the main window. The user can select a date from pull-down menus. If all available dates are not what he wants, just select NA (not available). Then click the Extract button at the right of the row.
- Note: the valuation date and the market data date are allowed to be different as sometimes a user conducts what-if analysis at a start-of-day (SOD), when the new market data are still not available. In that case, the user can use yesterday's data.

# How to load/modify market data associated with a trade? (Cont'd)



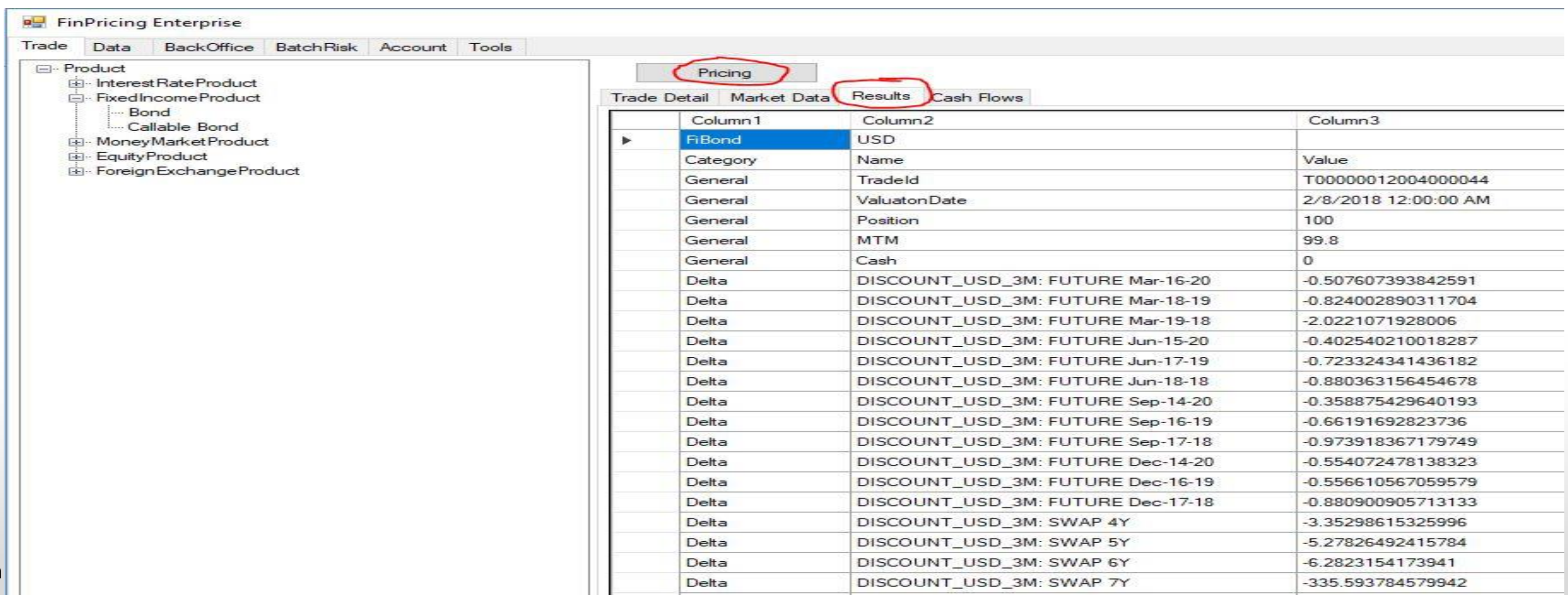
# How to load/modify market data associated with a trade? (Cont'd)

- The market data on 2/8/2018 are loaded in the main window. Again the user can modify and save the market data.



# How to load/modify market data associated with a trade? (Cont'd)

- After either new market data saved or existing market data loaded, the user can click the Pricing button. The calculation results will be presented in the Results tab.




| Column1 | Column2 | Column3 |
|---|---|---|
| FiBond | USD | |
| Category | Name | Value |
| General | TradeId | T000000120040000044 |
| General | ValuatonDate | 2/8/2018 12:00:00 AM |
| General | Position | 100 |
| General | MTM | 99.8 |
| General | Cash | 0 |
| Delta | DISCOUNT_USD_3M: FUTURE Mar-16-20 | -0.507607393842591 |
| Delta | DISCOUNT_USD_3M: FUTURE Mar-18-19 | -0.824002890311704 |
| Delta | DISCOUNT_USD_3M: FUTURE Mar-19-18 | -2.0221071928006 |
| Delta | DISCOUNT_USD_3M: FUTURE Jun-15-20 | -0.402540210018287 |
| Delta | DISCOUNT_USD_3M: FUTURE Jun-17-19 | -0.723324341436182 |
| Delta | DISCOUNT_USD_3M: FUTURE Jun-18-18 | -0.880363156454678 |
| Delta | DISCOUNT_USD_3M: FUTURE Sep-14-20 | -0.358875429640193 |
| Delta | DISCOUNT_USD_3M: FUTURE Sep-16-19 | -0.66191692823736 |
| Delta | DISCOUNT_USD_3M: FUTURE Sep-17-18 | -0.973918367179749 |
| Delta | DISCOUNT_USD_3M: FUTURE Dec-14-20 | -0.554072478138323 |
| Delta | DISCOUNT_USD_3M: FUTURE Dec-16-19 | -0.556610567059579 |
| Delta | DISCOUNT_USD_3M: FUTURE Dec-17-18 | -0.880900905713133 |
| Delta | DISCOUNT_USD_3M: SWAP 4Y | -3.35298615325996 |
| Delta | DISCOUNT_USD_3M: SWAP 5Y | -5.27826492415784 |
| Delta | DISCOUNT_USD_3M: SWAP 6Y | -6.2823154173941 |
| Delta | DISCOUNT_USD_3M: SWAP 7Y | -335.593784579942 |

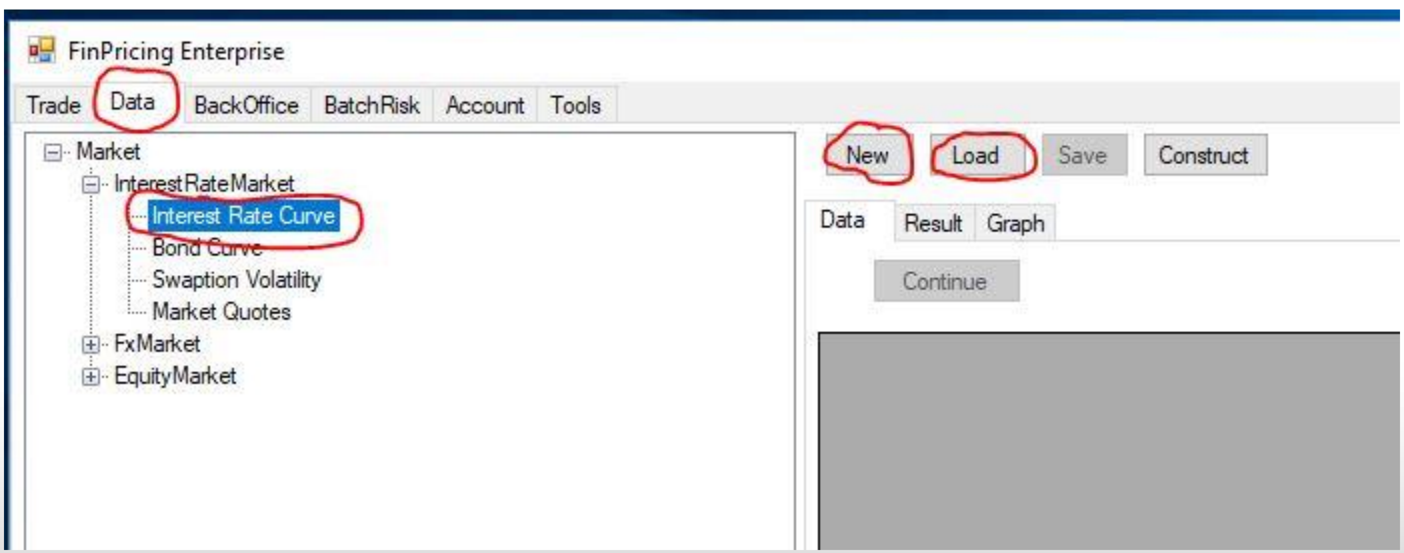
Intern

# How to load/modify market data associated with a trade? (Cont'd)

- Sometimes, bond prices are available (quoted) in the market. If the bond price is provided, FinPricing will match the model price to the market price by calibrating a credit spread that reflects credit risk and liquidity risk.
- If the market bond price is not given, FinPricing will compute the model price only based on the discount and/or forecast curves provided.
- FinPricing calculates sensitivities or Greeks based on market observable and liquid instruments, such as LIBOR rates, Eurodollar futures, and swap rates. This is the best market practice and convention as hedge and risk analysis are based on market observables. Most trading systems in the market compute Greeks relying on zero-rates, which is an easy way for convenience.
- To compute Greeks on market instruments, system/model needs to shock each instrument and then reconstruct curve one by one. The calculation is much more complex and time-consuming. But trickery cannot be used to gain advantage.

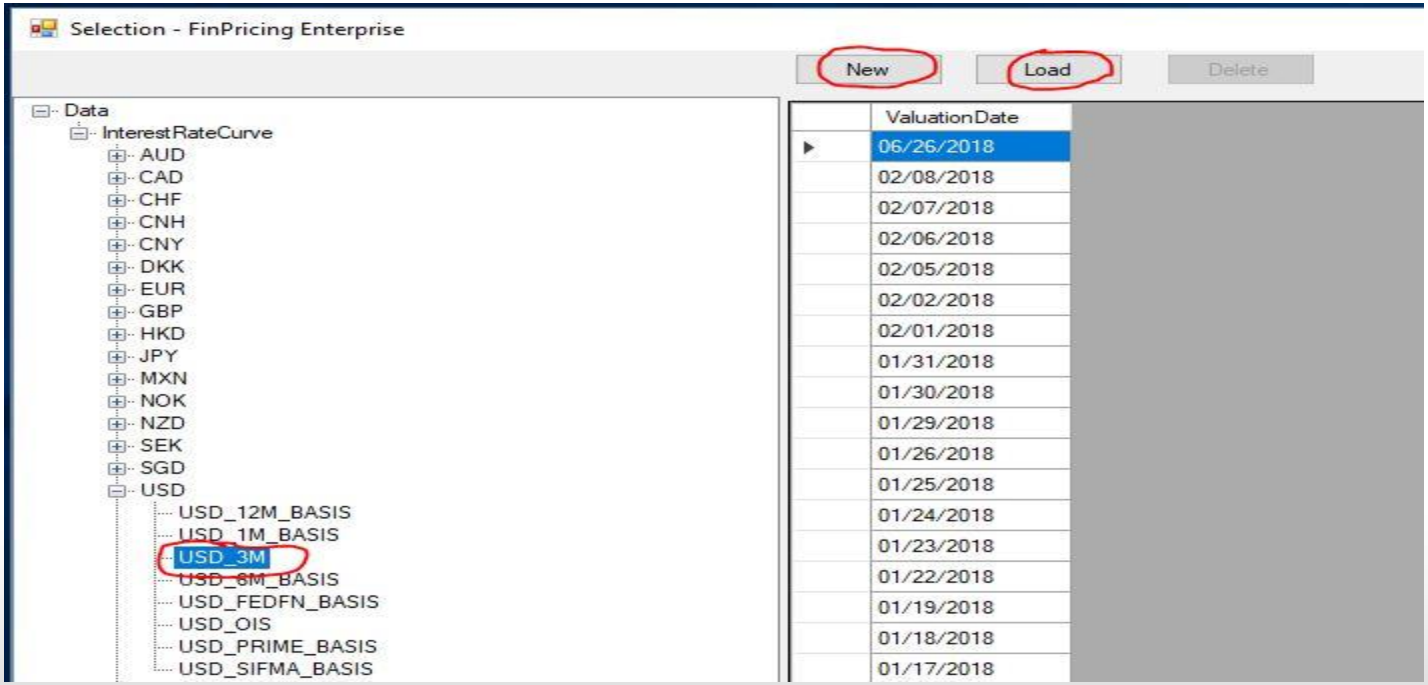
# How to load/modify market data manually?

- Click the Data tab at the top-left corner of the application. Then, expend Market -> particular market (e.g., Interest Rate Market) and select a market data set (e.g., Interest Rate Curve) .
- After that, you can either click the Load button to load an existing market data set for review/modification or the New button to generate new market data.



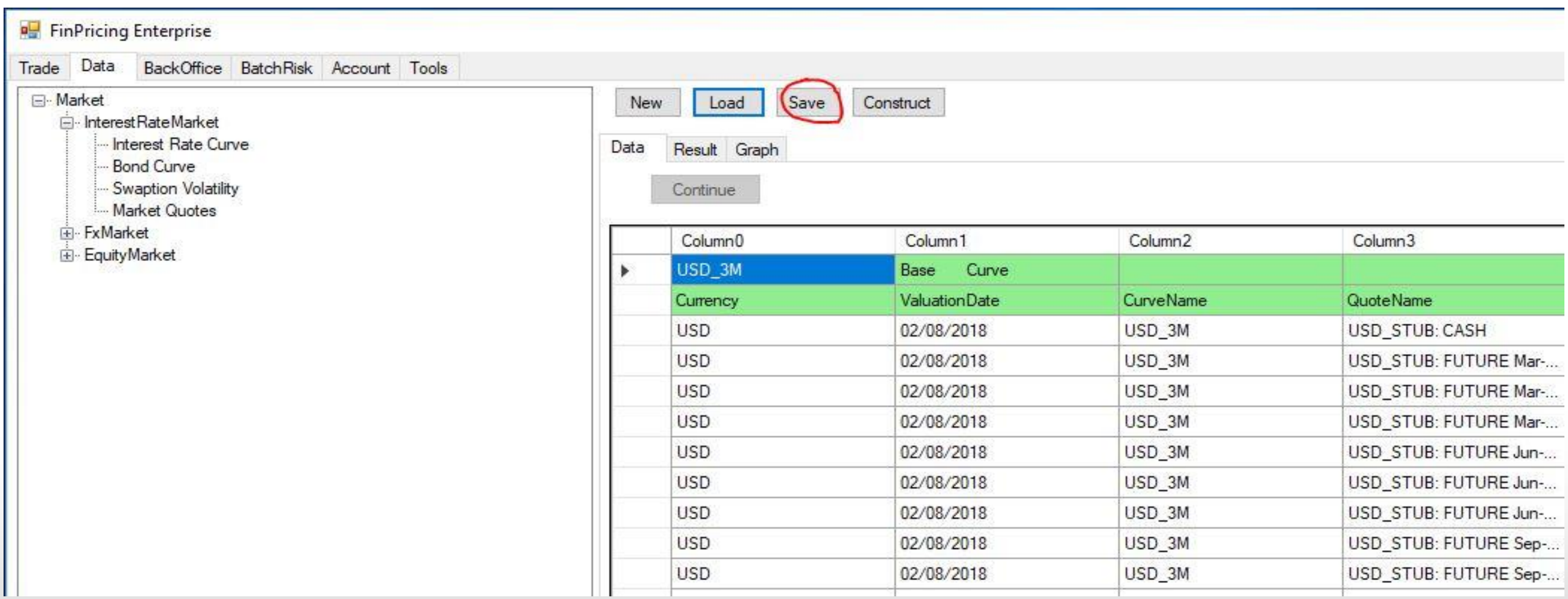
# How to load/modify market data manually? (Cont'd)

- If you click the Load button, a selection window pops up. Expend Data -> InterestRateCurve -> Currency (e.g., USD) and select a curve (e.g., USD_3M). The list of the available market dates of USD_3M is displayed in the main windows



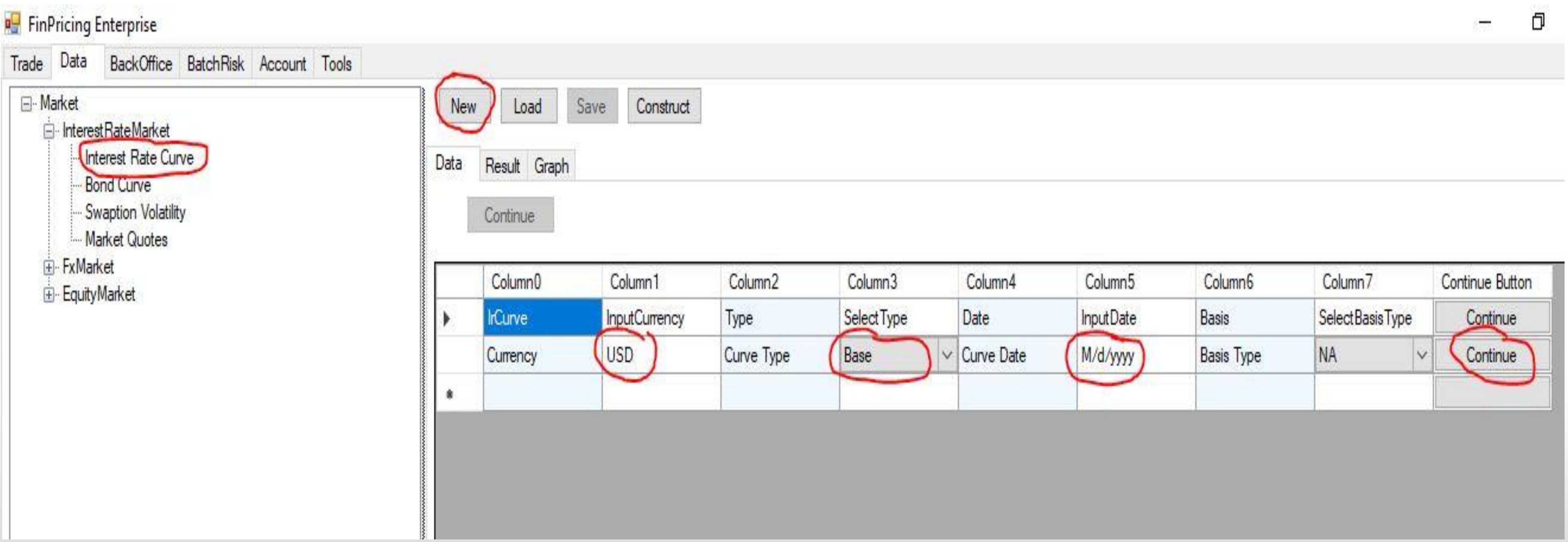
# How to load/modify market data manually? (Cont'd)

- Select a date and then click the Load button. The market data of that valuation date are displayed in the main windows. You can modify the data and click the Save button to save all the changes.



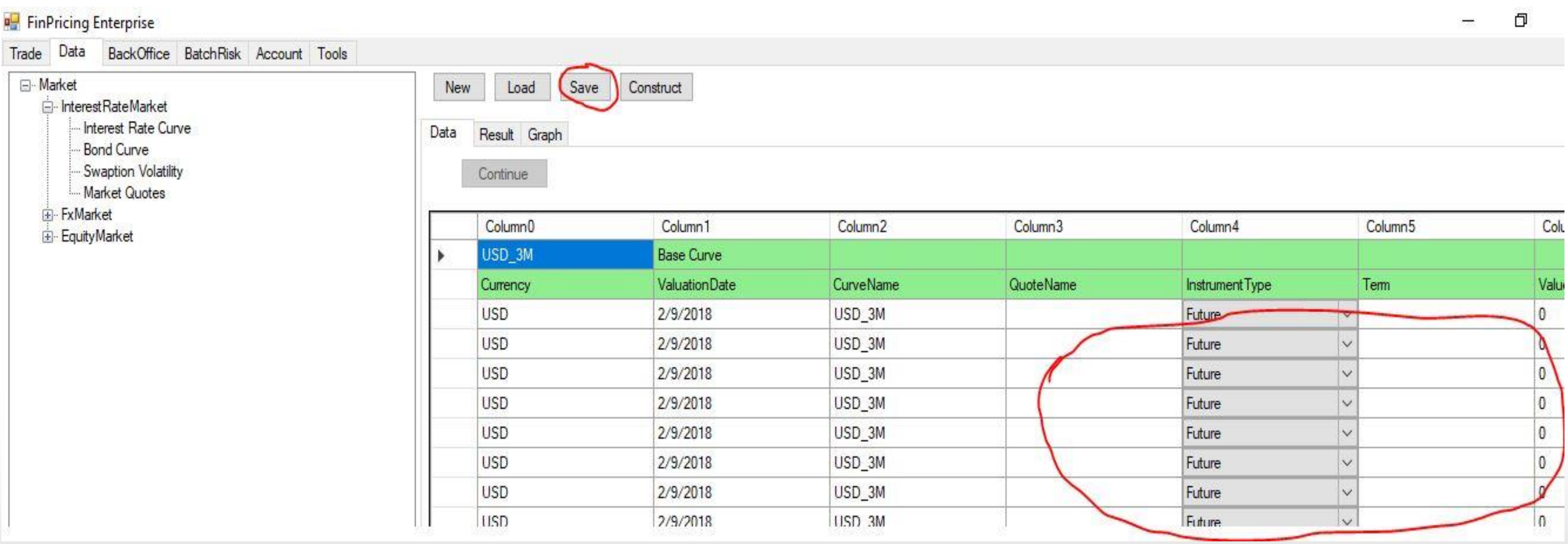
# How to load/modify market data manually? (Cont'd)

- Or if you click the New button, a selection template form is displayed in the main windows.
- Input Currency and Curve Data, and select Curve Type and Basis Type (if applicable). Then click Continue button at the end of each row.



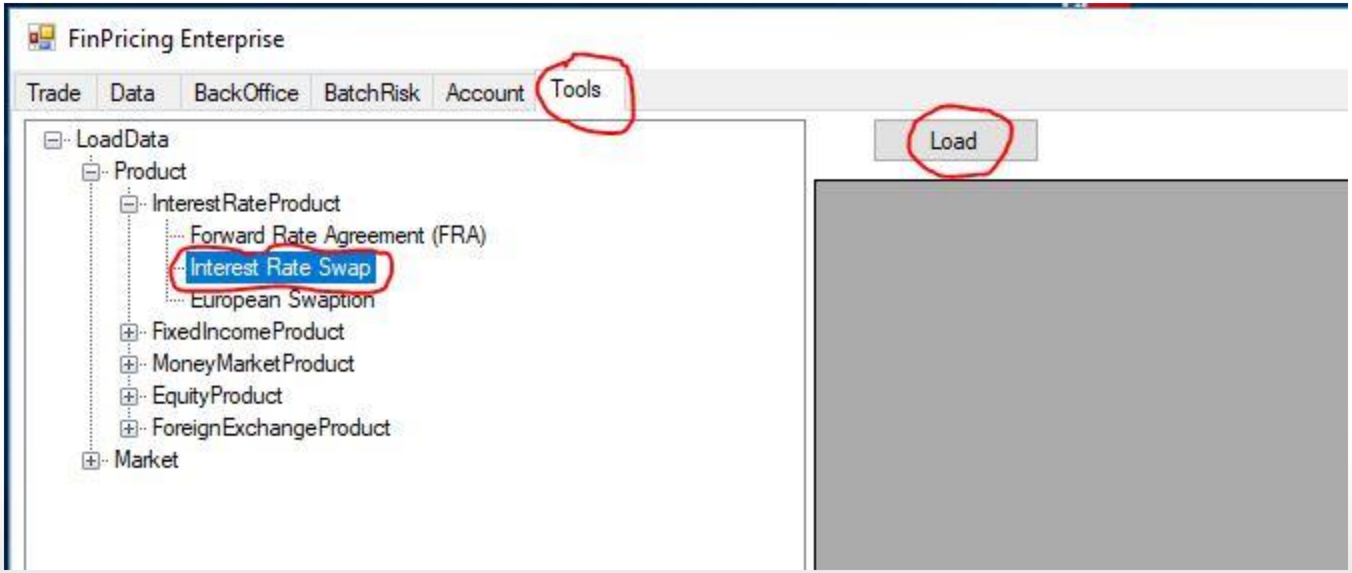
# How to load/modify market data manually? (Cont'd)

- A new market data template is shown in the main window. Fill all fields and click the Save button. The new market data are generated.



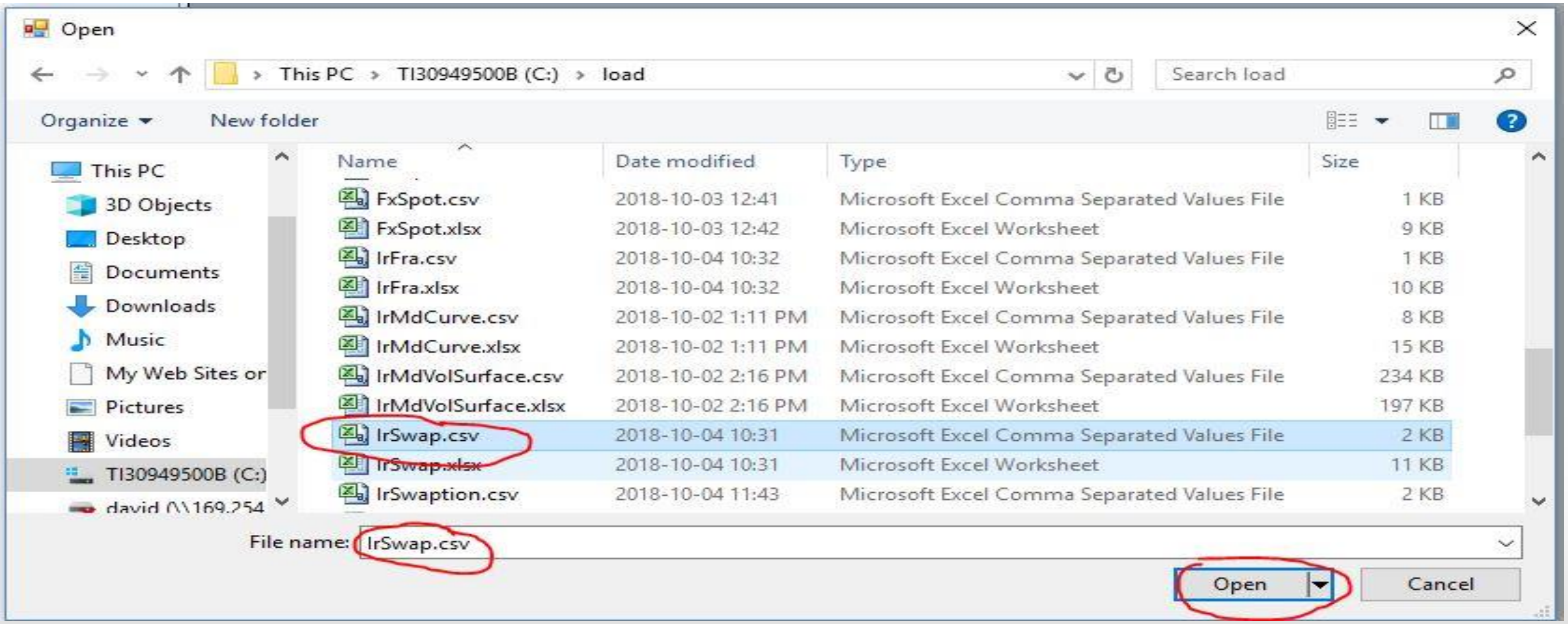
# How to local bulk market data?

- Click the Tool tab at the top-left corner of the application. Next, expend Product -> InterestRateProduct (for example). Then, select the Interest Rate Swap.



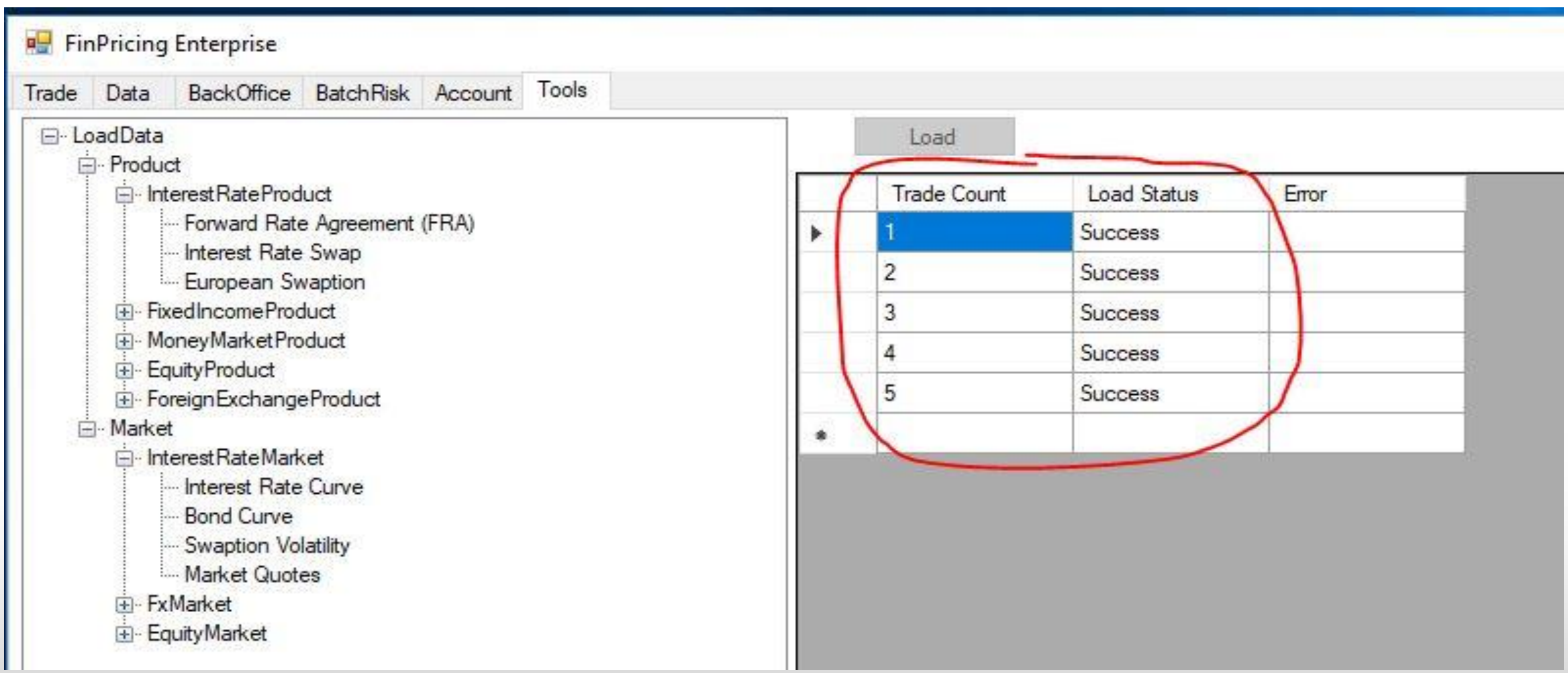
# How to local bulk market data? (Cont'd)

- Next, click the Load button. A window pops up allowing users to browse the local folders and select files.
- After selecting a bulk trade file that is in csv format, click the Open button.



# How to local bulk market data? (Cont'd)

- FinPricing starts to load all the trades defined in the file. Finally a summary table is displayed in the main window telling you how many trades are successfully loaded and how many of them fail.



# Thank You

You can find more details at
https://finpricing.com/lib/EqReverse.html