ir\_vegas.csv:

This file contains timeseries of TV and IR Vega of each trade, specifically:

1. Value Date: the date on which we compute the TV and Vega risks

2. Trade Name: trade identity

4. Zero Rate Shock: shock value in bps of the parallel yield curve zero rate shock

5. TV: total value of the trade in its trade currency

6. Expiry Bucket: expiry of the swaption

7. Expiry Date: expiry date of the swaption

8. Tenor Bucket: tenor of the swap to be entered by the swaption

9. Vega: trade's sensitivity in cash towards market swaption implied Normal volatility

For example, the row item

(2023-05-23,, USD, -50, dummyTrade1, -158091.52, 5y, 2028-05-23, 4y, -32.53)

indicates that:

Market Condition: USD zero rates moves in parallel by -50 basis points on 2023-05-23

dummyTrade1’s TV under the Market Condition is -158,091.52 in USD

dummyTrade1’s sensitivity towards USD 5y swaption (underlying 4y IRS) market implied Normal volatility is -32.53 in USD

For example, the row item

(1/13/2021, 10y, 10y, atm-1.0%, 0.17055186526449959)

indicates that on 1/13/2021, the implied normal volatility for a 10y swap starting in 10 years with strike being 0.99\*swap rate is 0.17055186526449959%

swap\_rates.csv:

This file contains timeseries of swap rates, specifically:

1. Date： quote date

2. Start Date: start date of swap

3. Tenor: swap tenor

4. Swap Rate: market swap rate value （in percentage)

For example, the row item

(1/13/2021, 1/13/2022, 10y, 1.0813328677467247)

indicates that the swap rate for a 10y swap starting from 1/13/2022 quoted on 1/13/2021 is 1.0813328677467247%

rates\_vols.csv:

This file contains time series of swap implied normal vols, specifically:

1. Date: quote date

2. Expiry: expiry of the swaption

3. Tenor: tenor of the swap to be entered by the swaption

4. Strike: rate spread to ATM value

5. Vols: market implied normal volatility (in percentage)

For example, the row item

(1/13/2021, 10y, 10y, atm-1.0%, 0.17055186526449959)

indicates that on 1/13/2021, the implied normal volatility for a 10y swap starting in 10 years with strike being 0.99\*swap rate is 0.17055186526449959%

portfolio\_information.csv:

This file contains information of the portfolio used in IR Vega calculation. For example, the 1st trade is a 5Y range accrual with 2y CMS rate as the underlying, coupon is paid every 6M with lower bound = 0.0042 and upper bound = 0.0379.