WEEK 4 01/09/2023

# Module 5.1 Decentralized Finance (DeFi) TWS3

Introduction to actuarial finance, forecasting values using 30-day/ 60-day/ 90-day regression analysis. The class is broken up into 5 groups with a focus on one of several market sectors:

[1] Cryptocurrency; [2] Financials; [3] Real Estate; [4] Energy; and [5] Commodities.

The students will be further developing and collaborating their findings from the prior Project to establish conditional rules that trigger real-time market order on the basis of buying pressure, volume, selling pressure, lack of volume, in addition to other determinants discussed in class. Students will receive an individual grade as well as a group grade which combines for 500 points. At this junction, the students are primarily responsible for producing outputs with their indicators without any market orders attached to the information. In the week which ensues we will be working to target various order on both the underlying securities as well as their derivative contracts. The premise of this exercise is to evaluate a larger market (WTI, or BTH... for example) and to determine what happens to their respective ETF tickers, or relative markets which are cased in iBoxx Market derivatives (as an example) which we will be evaluating in the following week.

https://github.com/ions29/cpp-reading-material/blob/main/TWS3/Regression

https://github.com/ions29/cpp-reading-material/blob/main/TWS3/spreadsheet.xlsx

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**** Project 3 [TWS-3]: 500 Points

5 Groups

Group 1. Cryptocurrency
Group Leader: Jules Clerc, Damien Maillard, Pierre Brun, Oriol Farras

CRYPTOS: [1] BTC,
[2] ETH,
[3] LINK,
[4] LTC,
[5] MATIC,

FUTURES: [6] YM (ConID: 551601503),
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[7] ES (ConID: 495512572)

## Group 2. Financials

Group Leader: Jean-Baptiste Roche, Tom Wederich, Quentin Waguet, Correntin Bourdeau

#### **INTEREST RATES:**

- [1] 30-DAY LIBOR
- [2] TWO YEAR TREASURY BOND
- [3] TEN YEAR TREASURY BOND

## **EQUITIES:**

- [4] C,
- [5] GS,
- [6] MS,
- [7] JPM,
- [8] AXP,
- [9] DB

## Group 3. Real Estate

Group Leader: Benjamin Ziane, Even Malfort, Romain Flori-Cangrelle, Quentin Lithavone

#### **INTEREST RATES:**

- [01] ONE YEAR NOTE
- [02] FIVE YEAR TREASURY BOND
- [03] THIRTY YEAR TREASURY BOND

#### **FUTURES:**

[04] LBR (ConID 578106878)

OIL: [05] CL1, Light Sweet Crude Oil

(ConId: 296574745)

EQUITIES: [06] CIM,

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[07] DRN,
                 [08] PLD,
                  [09] AMT,
                  [10] EQUIX,
Group 4. Energy
      Group Leader: Theo Pomies, Hugo Maltese, Romain Dufourt, Tiziano Cutillo
       OIL: [1] CL1
                  Light Sweet Crude Oil
                  (ConId: 296574745)
               [2] WTI
                 West Texas Intermediate Light Sweet Crude Oil
                  (ConId: 297249704)
       EQUTIES: [3] FCX,
               [4] CHK,
               [5] XLE,
               [6] XOM,
               [7] EOG,
               [8] CVX
Group 5. Commodities
      Group Leader: Adam Cuvier, Jules Martin, Maxemce Marques, Gregoire Bezier
      GOLD: [1] GC1
               [2] ZN (Ten Year Note)
               [3] FCX,
               [4] GOLD,
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[5] XAU,

[6] GLD,

[7] IAU,

[8] GLDM