11. Applied Finance I

潘得龍 Telung Pan
telung@mac.com

資料計算

- [ ] **Sum**
- [ ] **Mean**
- [ ] **Median**
- [ ] **Min**
- [ ] **Max**

GroupBy

- [ ] aggregate()
- [ ] Pivot Table

圖形表示

- Plot
  - Bmh
    - Label
- Errorbar
- Histogram
- Pie
- Legend

核密度圖（Seaborn-Kde）

- 核密度圖顯示數值變量的分佈，它非常類似於直方圖。
- 用平滑的峰值函数 (“核”) 模擬觀察到的資料點，從而對真實的概率分布曲線條進行模擬。

Seaborn

- [ ] Bar
- [ ] Heatmap

pandas-datareader

- import pandas_datareader as per
  df_2330 = pdr.DataReader(‘2330’.TW, ‘yahoo’)

投資組合風險評估

```
import datetime as datetime
start = datetime.datetime(2020, 1, 1)
df_CTC = pdr.DataReader('2412.TW', 'yahoo', start=start) #20%
df_EVA = pdr.DataReader('2618.TW', 'yahoo', start=start) #50%
df_TRU = pdr.DataReader('2103.TW', 'yahoo', start=start) #30#

for stock in [df_CTC, df_EVA, df_TRU]:
    stock['normalized_price']=stock['Adj Close']/stock['Adj Close'].iloc[0]

for stock, weight in zip([df_CTC, df_EVA, df_TRU], [0.2, 0.5, 0.3]):
    stock['weighted daily return'] = stock['normalized_price'] * weight

stock['weighted daily return']
```