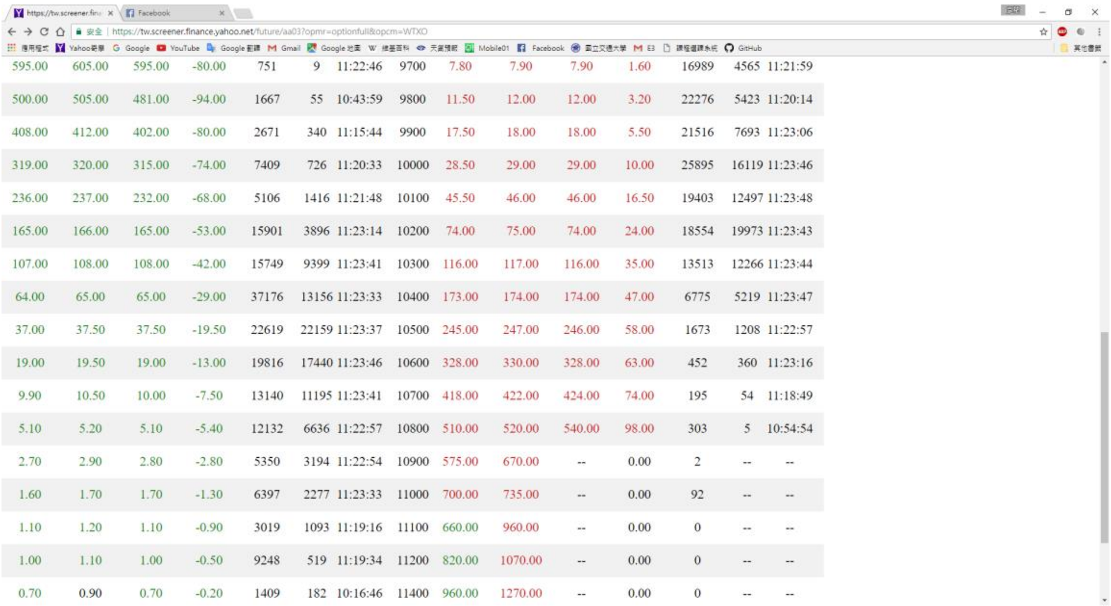
財務工程導論 期末作業

0313405 呂京祐 資財系 107 級

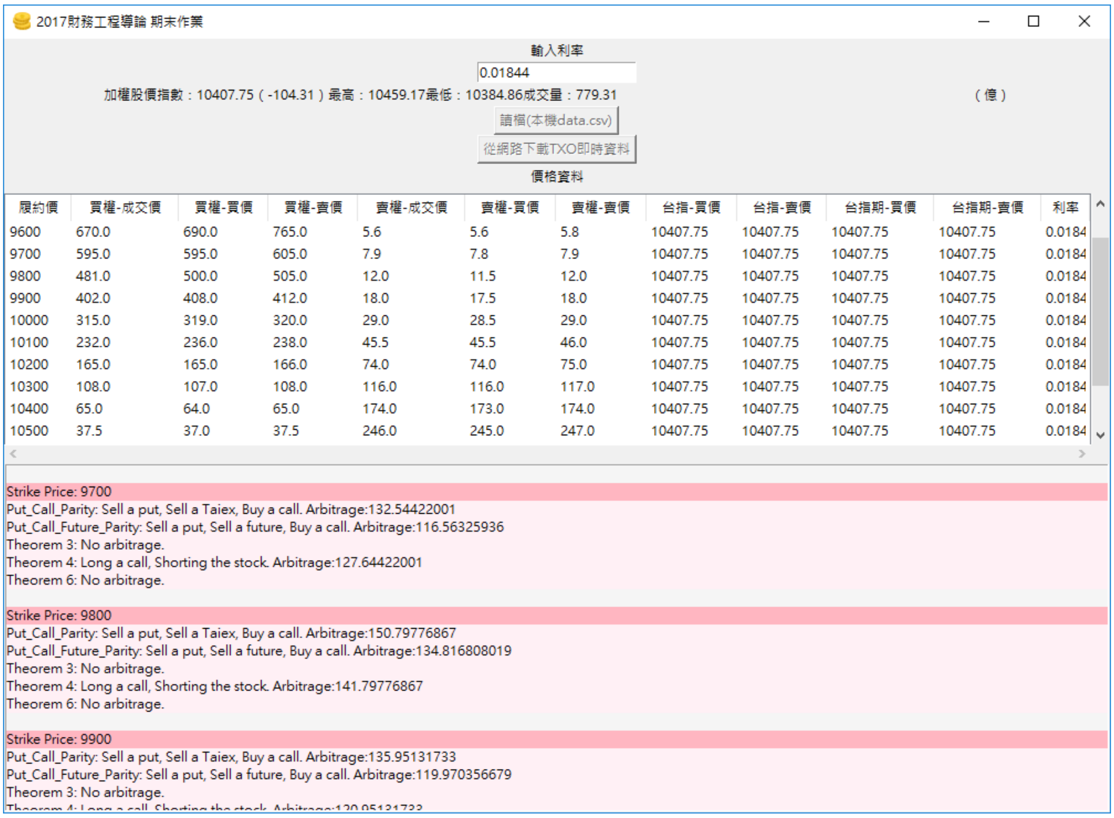
2017/6/28 11:24 即時資料截圖



https://tw.screener.finance.yahoo.net/future/aa03?opmr=optionfull&opcm=WTXO

595.00	605.00	595.00	-80.00	751	9	11:22:46	9700	7.80	7.90	7.90	1.60	16989	4565	11:21:59
500.00	505.00	481.00	-94.00	1667	55	10:43:59	9800	11.50	12.00	12.00	3.20	22276	5423	11:20:14
408.00	412.00	402.00	-80.00	2671	340	11:15:44	9900	17.50	18.00	18.00	5.50	21516	7693	11:23:06
319.00	320.00	315.00	-74.00	7409	726	11:20:33	10000	28.50	29.00	29.00	10.00	25895	16119	11:23:46
236.00	237.00	232.00	-68.00	5106	1416	11:21:48	10100	45.50	46.00	46.00	16.50	19403	12497	11:23:48
165.00	166.00	165.00	-53.00	15901	3896	11:23:14	10200	74.00	75.00	74.00	24.00	18554	19973	11:23:43
107.00	108.00	108.00	-42.00	15749	9399	11:23:41	10300	116.00	117.00	116.00	35.00	13513	12266	11:23:44
64.00	65.00	65.00	-29.00	37176	13156	11:23:33	10400	173.00	174.00	174.00	47.00	6775	5219	11:23:47
37.00	37.50	37.50	-19.50	22619	22159	11:23:37	10500	245.00	247.00	246.00	58.00	1673	1208	11:22:57
19.00	19.50	19.00	-13.00	19816	17440	11:23:46	10600	328.00	330.00	328.00	63.00	452	360	11:23:16
9.90	10.50	10.00	-7.50	13140	11195	11:23:41	10700	418.00	422.00	424.00	74.00	195	54	11:18:49
5.10	5.20	5.10	-5.40	12132	6636	11:22:57	10800	510.00	520.00	540.00	98.00	303	5	10:54:54
2.70	2.90	2.80	-2.80	5350	3194	11:22:54	10900	575.00	670.00	--	0.00	2	--	--
1.60	1.70	1.70	-1.30	6397	2277	11:23:33	11000	700.00	735.00	--	0.00	92	--	--
1.10	1.20	1.10	-0.90	3019	1093	11:19:16	11100	660.00	960.00	--	0.00	0	--	--
1.00	1.10	1.00	-0.50	9248	519	11:19:34	11200	820.00	1070.00	--	0.00	0	--	--
0.70	0.90	0.70	-0.20	1409	182	10:16:46	11400	960.00	1270.00	--	0.00	0	--	--

2017/6/28 11:24 即時資料運算結果



2017財務工程導論 期末作業

輸入利率

0.01844

加權股價指數：10407.75（-104.31）最高：10459.17最低：10384.86成交量：779.31 （億）

讀檔(本機data.csv)

從網路下載TXO即時資料

價格資料

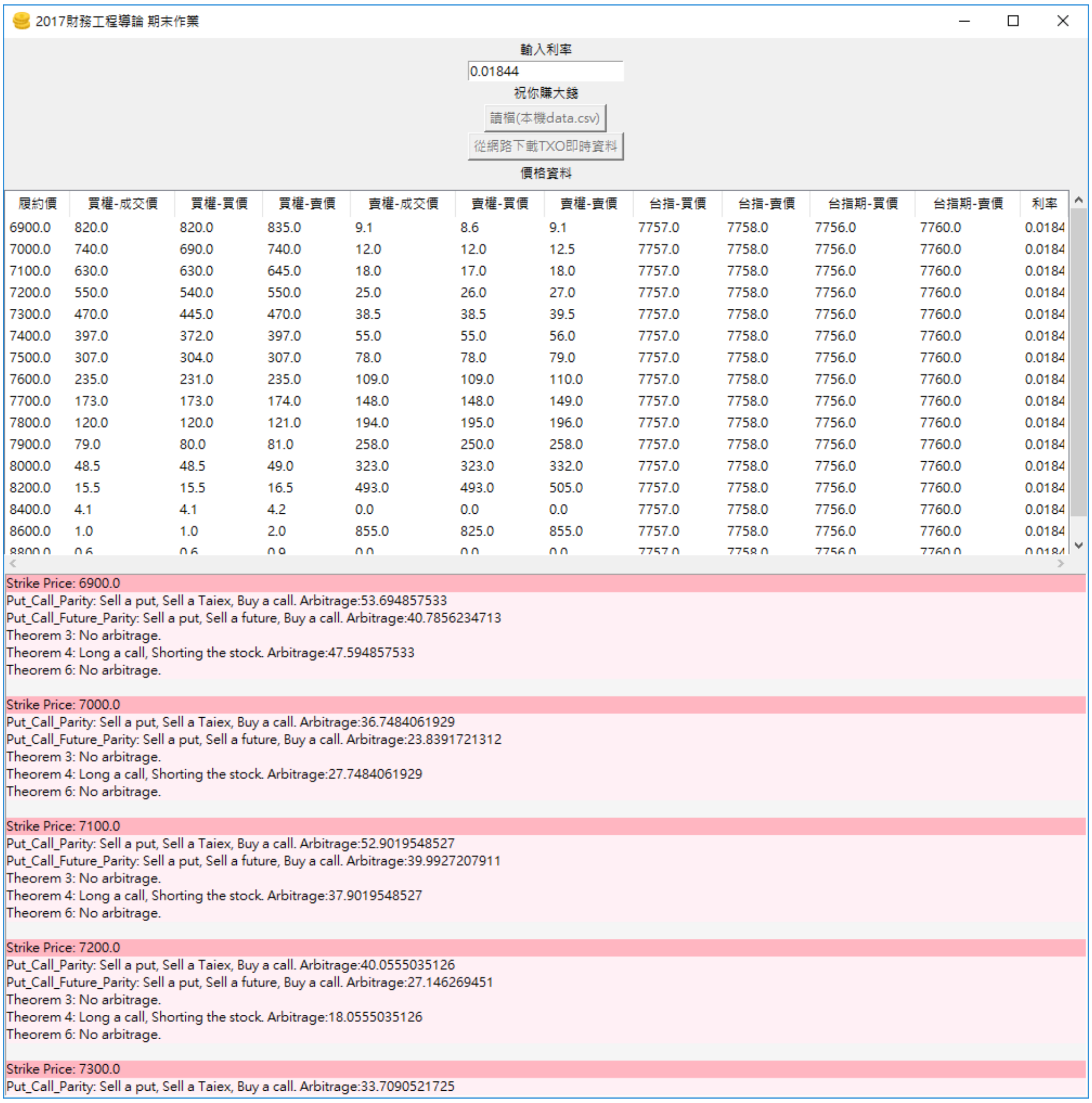
履約價	買權-成交價	買權-買價	買權-賣價	賣權-成交價	賣權-買價	賣權-賣價	台指-買價	台指-賣價	台指期-買價	台指期-賣價	利率
9600	670.0	690.0	765.0	5.6	5.6	5.8	10407.75	10407.75	10407.75	10407.75	0.0184
9700	595.0	595.0	605.0	7.9	7.8	7.9	10407.75	10407.75	10407.75	10407.75	0.0184
9800	481.0	500.0	505.0	12.0	11.5	12.0	10407.75	10407.75	10407.75	10407.75	0.0184
9900	402.0	408.0	412.0	18.0	17.5	18.0	10407.75	10407.75	10407.75	10407.75	0.0184
10000	315.0	319.0	320.0	29.0	28.5	29.0	10407.75	10407.75	10407.75	10407.75	0.0184
10100	232.0	236.0	238.0	45.5	45.5	46.0	10407.75	10407.75	10407.75	10407.75	0.0184
10200	165.0	165.0	166.0	74.0	74.0	75.0	10407.75	10407.75	10407.75	10407.75	0.0184
10300	108.0	107.0	108.0	116.0	116.0	117.0	10407.75	10407.75	10407.75	10407.75	0.0184
10400	65.0	64.0	65.0	174.0	173.0	174.0	10407.75	10407.75	10407.75	10407.75	0.0184
10500	37.5	37.0	37.5	246.0	245.0	247.0	10407.75	10407.75	10407.75	10407.75	0.0184

Strike Price: 9700
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage:132.54422001
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage:116.56325936
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage:127.64422001
Theorem 6: No arbitrage.

Strike Price: 9800
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage:150.79776867
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage:134.816808019
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage:141.79776867
Theorem 6: No arbitrage.

Strike Price: 9900
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage:135.95131733
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage:119.970356679
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage:120.95131733

Result(作業檔案):



2017財務工程導論 期末作業

輸入利率

0.01844

祝你賺大錢

讀檔(本機data.csv)

從網路下載TXO即時資料

價格資料

履約價	買權-成交價	買權-買價	買權-賣價	賣權-成交價	賣權-買價	賣權-賣價	台指-買價	台指-賣價	台指期-買價	台指期-賣價	利率
6900.0	820.0	820.0	835.0	9.1	8.6	9.1	7757.0	7758.0	7756.0	7760.0	0.0184
7000.0	740.0	690.0	740.0	12.0	12.0	12.5	7757.0	7758.0	7756.0	7760.0	0.0184
7100.0	630.0	630.0	645.0	18.0	17.0	18.0	7757.0	7758.0	7756.0	7760.0	0.0184
7200.0	550.0	540.0	550.0	25.0	26.0	27.0	7757.0	7758.0	7756.0	7760.0	0.0184
7300.0	470.0	445.0	470.0	38.5	38.5	39.5	7757.0	7758.0	7756.0	7760.0	0.0184
7400.0	397.0	372.0	397.0	55.0	55.0	56.0	7757.0	7758.0	7756.0	7760.0	0.0184
7500.0	307.0	304.0	307.0	78.0	78.0	79.0	7757.0	7758.0	7756.0	7760.0	0.0184
7600.0	235.0	231.0	235.0	109.0	109.0	110.0	7757.0	7758.0	7756.0	7760.0	0.0184
7700.0	173.0	173.0	174.0	148.0	148.0	149.0	7757.0	7758.0	7756.0	7760.0	0.0184
7800.0	120.0	120.0	121.0	194.0	195.0	196.0	7757.0	7758.0	7756.0	7760.0	0.0184
7900.0	79.0	80.0	81.0	258.0	250.0	258.0	7757.0	7758.0	7756.0	7760.0	0.0184
8000.0	48.5	48.5	49.0	323.0	323.0	332.0	7757.0	7758.0	7756.0	7760.0	0.0184
8200.0	15.5	15.5	16.5	493.0	493.0	505.0	7757.0	7758.0	7756.0	7760.0	0.0184
8400.0	4.1	4.1	4.2	0.0	0.0	0.0	7757.0	7758.0	7756.0	7760.0	0.0184
8600.0	1.0	1.0	2.0	855.0	825.0	855.0	7757.0	7758.0	7756.0	7760.0	0.0184
8800.0	0.6	0.6	0.9	0.0	0.0	0.0	7757.0	7758.0	7756.0	7760.0	0.0184

Strike Price: 6900.0
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage:53.694857533
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage:40.7856234713
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage:47.594857533
Theorem 6: No arbitrage.

Strike Price: 7000.0
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage:36.7484061929
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage:23.8391721312
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage:27.7484061929
Theorem 6: No arbitrage.

Strike Price: 7100.0
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage:52.9019548527
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage:39.9927207911
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage:37.9019548527
Theorem 6: No arbitrage.

Strike Price: 7200.0
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage:40.0555035126
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage:27.146269451
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage:18.0555035126
Theorem 6: No arbitrage.

Strike Price: 7300.0
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage:33.7090521725

詳細結果如下頁...

Result(作業檔案結果):

Strike Price: 6900
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 53.694857533
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 40.7856234713
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage: 47.594857533
Theorem 6: No arbitrage.

Strike Price: 7000
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 36.7484061929
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 23.8391721312
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage: 27.7484061929
Theorem 6: No arbitrage.

Strike Price: 7100
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 52.9019548527
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 39.9927207911
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage: 37.9019548527
Theorem 6: No arbitrage.

Strike Price: 7200
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 40.0555035126
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 27.146269451
Theorem 3: No arbitrage.
Theorem 4: Long a call, Shorting the stock. Arbitrage: 18.0555035126
Theorem 6: No arbitrage.

Strike Price: 7300
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 33.7090521725
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 20.7998181109
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: No arbitrage.

Strike Price: 7400

Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 23.3626008324
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 10.4533667708
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: No arbitrage.

Strike Price: 7500
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 36.5161494923
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 23.6069154307
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: No arbitrage.

Strike Price: 7600
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 39.6696981522
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 26.7604640906
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: No arbitrage.

Strike Price: 7700
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 40.8232468121
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 27.9140127505
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: No arbitrage.

Strike Price: 7800
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 39.976795472
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 27.0675614104
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: No arbitrage.

Strike Price: 7900
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 45.1303441319
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 32.2211100703
Theorem 3: No arbitrage.

Theorem 4: No arbitrage.
Theorem 6: No arbitrage.

Strike Price: 8000
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 40.7838927918
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 27.8746587302
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: No arbitrage.
Strike Price: 8200
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 44.0909901116
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 31.1817560499
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: No arbitrage.

Strike Price: 8400
Put_Call_Parity: Price is missing.
Put_Call_Future_Parity: Price is missing.
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: Price is missing.

Strike Price: 8600
Put_Call_Parity: Sell a put, Sell a Taiex, Buy a call. Arbitrage: 21.2051847512
Put_Call_Future_Parity: Sell a put, Sell a future, Buy a call. Arbitrage: 8.29595068954
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: No arbitrage.

Strike Price: 8800
Put_Call_Parity: Price is missing.
Put_Call_Future_Parity: Price is missing.
Theorem 3: No arbitrage.
Theorem 4: No arbitrage.
Theorem 6: Price is missing.