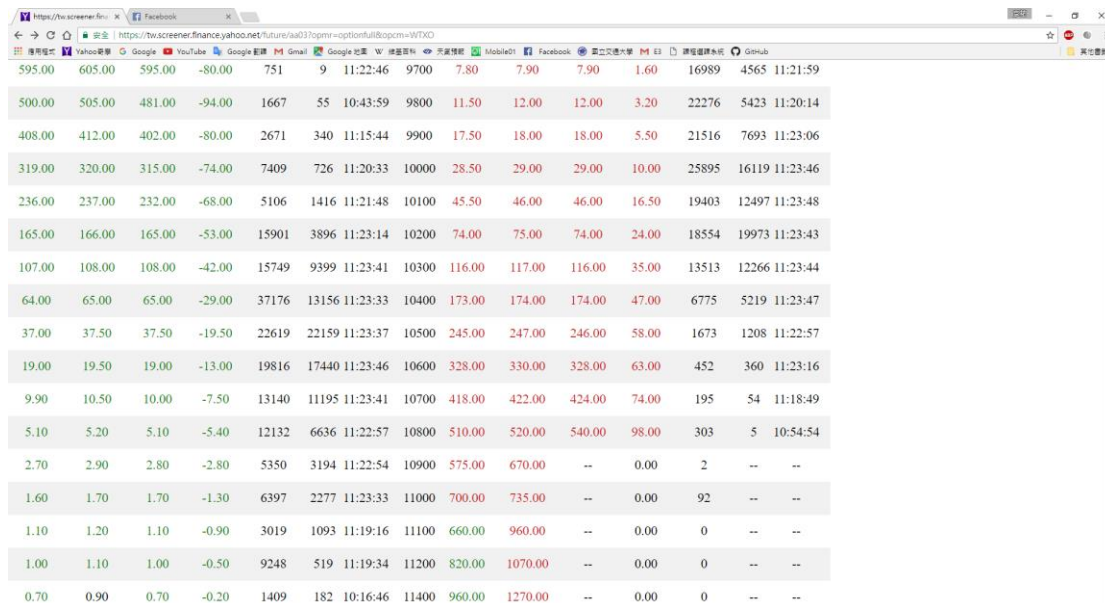


# 財務工程導論 期末作業

## 0313405 呂京祐 資財系 107 級

2017/6/28 11:24 即時資料截圖



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



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	10407.75	10407.75	10407.75	10407.75	0.0184
9700	595.0	595.0	605.0	7.9	7.8	10407.75	10407.75	10407.75	10407.75	0.0184
9800	481.0	500.0	505.0	12.0	11.5	10407.75	10407.75	10407.75	10407.75	0.0184
9900	402.0	408.0	412.0	18.0	17.5	10407.75	10407.75	10407.75	10407.75	0.0184
10000	315.0	319.0	320.0	29.0	28.5	10407.75	10407.75	10407.75	10407.75	0.0184
10100	232.0	236.0	238.0	45.5	45.5	10407.75	10407.75	10407.75	10407.75	0.0184
10200	165.0	165.0	166.0	74.0	74.0	10407.75	10407.75	10407.75	10407.75	0.0184
10300	108.0	107.0	108.0	116.0	116.0	10407.75	10407.75	10407.75	10407.75	0.0184
10400	65.0	64.0	65.0	174.0	173.0	10407.75	10407.75	10407.75	10407.75	0.0184
10500	37.5	37.0	37.5	246.0	245.0	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:120.05131733

## 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											
語檔(本機data.csv)											
從網路下載TXO即時資料											
僅顯示買賣成交價完整之價格資料											
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
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:45.594857533											
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:25.7484061929											
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:35.9019548527											
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:16.0555035126											
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: 6900.0

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:45.594857533

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:25.7484061929

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:35.9019548527

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:16.0555035126

Theorem 6: No arbitrage.

Strike Price: 7300.0

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: 7400.0

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: 7500.0

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: 7600.0

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: 7700.0

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: 7800.0

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: 7900.0

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: 8000.0

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: 8200.0

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: 8400.0

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: 8600.0

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: 8800.0

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.