# Introduction

In this report, two momentum trading strategies are compared. The first one is Moving Average Convergence / Divergence (MACD), and the second one is MACD plus Donchian channel. Both MACD and Donchian Channel are moving average channel-based indicators with their own pros and cons. We speculate trade signals are more accurate by combining both MACD and Donchian channel.

**Moving Average Convergence / Divergence (MACD)**

MACD is calculated by subtracting the long-term EMA (26 periods) from the short-term EMA (12 periods). A long signal is generated when MACD line crosses up through the average line and a short signal is generated when MACD line crosses down through the average line. It is best used in mid to long uptrend or downtrend market. On the other hand, “false signal” often occurs when the price of an asset moves sideways, such as triangle pattern.

**Donchian channel**

Donchian Channels are three lines generated by moving average calculations that comprise an indicator formed by upper and lower bands around a mid-range or median band. The upper band marks the highest price of a security over N periods while the lower band marks the lowest price of a security over N periods. The area between the upper and lower bands represents the Donchian Channel. Donchian channels are mainly used to identify the breakout of a stock.

# Test setup & program logic

HSI futures market is used for this back testing. It is one of the best-known index futures that is traded in significant volume. Daily HSI futures data is evaluated. The most recent transaction fee and margin ratio is downloaded from HKEX website. Commission fee is captured from one of the local securities groups. To simplify calculations, we assume the initial margin is fixed at 0.085 and remain the same during the holding period. We assume capital reserve is enough to cover potential margin maintenance. Available balance is updated only when opening or closing position in contrast to daily update in real world. Average price ((High + Low) /2) is used for opening position. At the last trading day, all positions in the portfolio are renewed with next calendar month futures’ average price.

|  |  |
| --- | --- |
| Market | HSI futures |
| Contract multiplier | HKD 50 per index point |
| Contract month | Spot or next calendar month |
| Capital | HKD 1000000 |
| Reserve ratio | 15% |
| Exchange fee | HKD 10.00 |
| SFC Levy | HKD 0.54 |
| Commission | HKD 90 |
| Initial margin | 8.5% |
| Start date | 2018-07-01 |
| End date | 2019-06-27 |

# Trading signal

**Strategy 1: MACD**

fast period = 12d, slow period = 26d, signal period = 9d

|  |  |
| --- | --- |
| Long | MACD\_Hist[T-1] < 0 and MACD\_Hist[T] > 0 |
| Exit long | MACD\_Hist[T-1] > 0 and MACD\_Hist[T] < 0 |
| Short | MACD\_Hist[T-1] > 0 and MACD\_Hist[T] < 0 |
| Exit short | MACD\_Hist[T-1] < 0 and MACD\_Hist[T] > 0 |

**Strategy 2: MACD + Donchian channel**

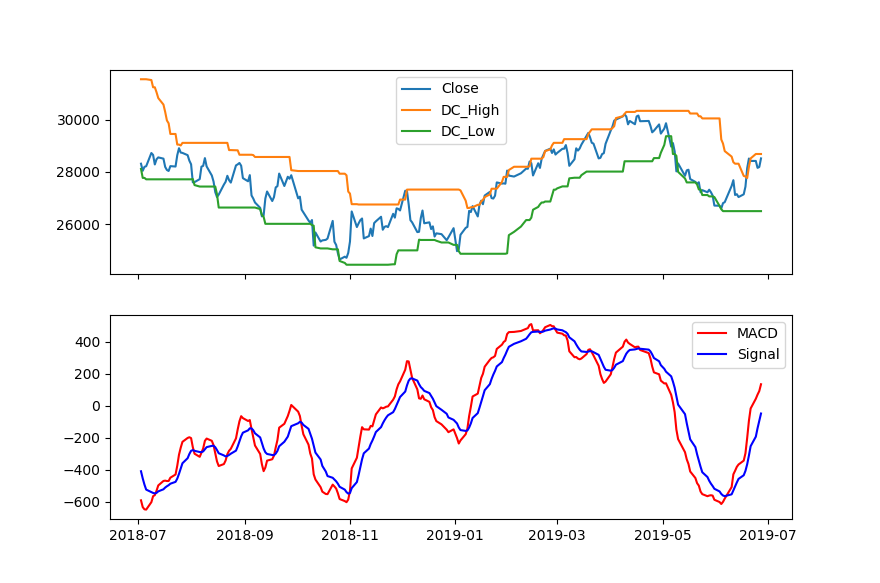
For MACD, fast period = 12d, slow period = 26d, signal period = 9d

For Donchian channel, N = 20d

|  |  |
| --- | --- |
| Long | Price[T] > Donchian\_Upper\_Band[T] |
| Exit long | MACD\_Hist[T-1] > 0 and MACD\_Hist[T] < 0 |
| Short | Price[T] < Donchian\_Lower\_Band[T] |
| Exit short | MACD\_Hist[T-1] < 0 and MACD\_Hist[T] > 0 |

# Trading log and result

**Market chart**



**MACD**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| date | position\_id | name | price | qty | type | initial\_margin | cost | net\_profit |
| 12/7/2018 | b57ef5e6 | HSI (Jul 2018) | 28397 | 1 | long | 120687.25 | 100.54 |  |
| 30/7/2018 | b57ef5e6 | HSI (Jul 2018) | 28644 | 1 | close |  | 100.54 | 12249.46 |
| 30/7/2018 | 3ff3d1e5 | HSI (Aug 2018) | 28669 | 1 | long | 121843.25 | 100.54 |  |
| 3/8/2018 | 3ff3d1e5 | HSI (Aug 2018) | 27613 | 1 | close |  | 100.54 | -52900.54 |
| 3/8/2018 | 9fda23f9 | HSI (Aug 2018) | 27601 | 1 | short | 117304.25 | 100.54 |  |
| 8/8/2018 | 9fda23f9 | HSI (Aug 2018) | 28234 | 1 | close |  | 100.54 | -31750.54 |
| 8/8/2018 | 0bf0eef4 | HSI (Aug 2018) | 28258 | 1 | long | 120096.5 | 100.54 |  |
| 15/8/2018 | 0bf0eef4 | HSI (Aug 2018) | 27231 | 1 | close |  | 100.54 | -51450.54 |
| 15/8/2018 | 0d4e2cc8 | HSI (Aug 2018) | 27439 | 1 | short | 116615.75 | 100.54 |  |
| 22/8/2018 | 0d4e2cc8 | HSI (Aug 2018) | 27855 | 1 | close |  | 100.54 | -20900.54 |
| 22/8/2018 | bcb3f58a | HSI (Aug 2018) | 27702.5 | 1 | long | 117735.625 | 100.54 |  |
| 30/8/2018 | bcb3f58a | HSI (Aug 2018) | 28239 | 1 | close |  | 100.54 | 26724.46 |
| 30/8/2018 | bde25f28 | HSI (Sep 2018) | 28281.5 | 1 | long | 120196.375 | 100.54 |  |
| 5/9/2018 | bde25f28 | HSI (Sep 2018) | 27104 | 1 | close |  | 100.54 | -58975.54 |
| 5/9/2018 | d919a1e5 | HSI (Sep 2018) | 27488.5 | 1 | short | 116826.125 | 100.54 |  |
| 19/9/2018 | d919a1e5 | HSI (Sep 2018) | 27411 | 1 | close |  | 100.54 | 3774.46 |
| 19/9/2018 | b0f8872e | HSI (Sep 2018) | 27255.5 | 1 | long | 115835.875 | 100.54 |  |
| 27/9/2018 | b0f8872e | HSI (Sep 2018) | 27742 | 1 | close |  | 100.54 | 24224.46 |
| 27/9/2018 | b89cc243 | HSI (Oct 2018) | 27794 | 1 | long | 118124.5 | 100.54 |  |
| 4/10/2018 | b89cc243 | HSI (Oct 2018) | 26563 | 1 | close |  | 100.54 | -61650.54 |
| 4/10/2018 | 20708340 | HSI (Oct 2018) | 26832.5 | 1 | short | 114038.125 | 100.54 |  |
| 30/10/2018 | 20708340 | HSI (Oct 2018) | 24722 | 1 | close |  | 100.54 | 105424.46 |
| 30/10/2018 | 0e02db84 | HSI (Nov 2018) | 24787 | 1 | short | 105344.75 | 100.54 |  |
| 1/11/2018 | 0e02db84 | HSI (Nov 2018) | 25342 | 1 | close |  | 100.54 | -27850.54 |
| 1/11/2018 | 093f12fa | HSI (Nov 2018) | 25187 | 1 | long | 107044.75 | 100.54 |  |
| 29/11/2018 | 093f12fa | HSI (Nov 2018) | 26590 | 1 | close |  | 100.54 | 70049.46 |
| 29/11/2018 | d344f697 | HSI (Dec 2018) | 26677.5 | 1 | long | 113379.375 | 100.54 |  |
| 10/12/2018 | d344f697 | HSI (Dec 2018) | 25704 | 1 | close |  | 100.54 | -48775.54 |
| 10/12/2018 | f501ad67 | HSI (Dec 2018) | 25960 | 1 | short | 110330 | 100.54 |  |
| 28/12/2018 | f501ad67 | HSI (Dec 2018) | 25504 | 1 | close |  | 100.54 | 22699.46 |
| 28/12/2018 | 24b4d25c | HSI (Jan 2019) | 25424.5 | 1 | short | 108054.125 | 100.54 |  |
| 8/1/2019 | 24b4d25c | HSI (Jan 2019) | 25903 | 1 | close |  | 100.54 | -24025.54 |
| 8/1/2019 | febf3dd8 | HSI (Jan 2019) | 25859.5 | 1 | long | 109902.875 | 100.54 |  |
| 30/1/2019 | febf3dd8 | HSI (Jan 2019) | 27552 | 1 | close |  | 100.54 | 84524.46 |
| 30/1/2019 | 1a419be1 | HSI (Feb 2019) | 27511 | 1 | long | 116921.75 | 100.54 |  |
| 19/2/2019 | 1a419be1 | HSI (Feb 2019) | 28155 | 1 | close |  | 100.54 | 32099.46 |
| 19/2/2019 | 41cfe90a | HSI (Feb 2019) | 28288 | 1 | short | 120224 | 100.54 |  |
| 21/2/2019 | 41cfe90a | HSI (Feb 2019) | 28655 | 1 | close |  | 100.54 | -18450.54 |
| 21/2/2019 | dee4904b | HSI (Feb 2019) | 28581 | 1 | long | 121469.25 | 100.54 |  |
| 27/2/2019 | dee4904b | HSI (Feb 2019) | 28864 | 1 | close |  | 100.54 | 14049.46 |
| 27/2/2019 | 61fc1601 | HSI (Mar 2019) | 28861.5 | 1 | long | 122661.375 | 100.54 |  |
| 28/2/2019 | ed78811e | HSI (Mar 2019) | 28756.5 | 1 | short | 122215.125 | 100.54 |  |
| 19/3/2019 | ed78811e | HSI (Mar 2019) | 29494 | 1 | close |  | 100.54 | -36975.54 |
| 19/3/2019 | 44c5c5b9 | HSI (Mar 2019) | 29438 | 1 | long | 125111.5 | 100.54 |  |
| 21/3/2019 | 61fc1601 | HSI (Mar 2019) | 29117 | 1 | close |  | 100.54 | 12674.46 |
| 21/3/2019 | 44c5c5b9 | HSI (Mar 2019) | 29117 | 1 | close |  | 100.54 | -16150.54 |
| 21/3/2019 | 8e4de7c4 | HSI (Mar 2019) | 29274 | 1 | short | 124414.5 | 100.54 |  |
| 28/3/2019 | 8e4de7c4 | HSI (Mar 2019) | 28719 | 1 | close |  | 100.54 | 27649.46 |
| 28/3/2019 | 18bcf76a | HSI (Apr 2019) | 28716 | 1 | short | 122043 | 100.54 |  |
| 2/4/2019 | 18bcf76a | HSI (Apr 2019) | 29739 | 1 | close |  | 100.54 | -51250.54 |
| 2/4/2019 | fb77a89b | HSI (Apr 2019) | 29657 | 1 | long | 126042.25 | 100.54 |  |
| 18/4/2019 | fb77a89b | HSI (Apr 2019) | 29940 | 1 | close |  | 100.54 | 14049.46 |
| 18/4/2019 | 501148eb | HSI (Apr 2019) | 30058.5 | 1 | short | 127748.625 | 100.54 |  |
| 29/4/2019 | 501148eb | HSI (Apr 2019) | 29818 | 1 | close |  | 100.54 | 11924.46 |
| 29/4/2019 | 008fe9ab | HSI (May 2019) | 29533.5 | 1 | short | 125517.375 | 100.54 |  |
| 30/5/2019 | 008fe9ab | HSI (May 2019) | 27100 | 1 | close |  | 100.54 | 121574.46 |
| 30/5/2019 | 1d1b1550 | HSI (Jun 2019) | 27007.5 | 1 | short | 114781.875 | 100.54 |  |
| 10/6/2019 | 1d1b1550 | HSI (Jun 2019) | 27469 | 1 | close |  | 100.54 | -23175.54 |
| 10/6/2019 | 803bfef2 | HSI (Jun 2019) | 27144.5 | 1 | long | 115364.125 | 100.54 |  |
| 27/6/2019 | 803bfef2 | HSI (Jun 2019) | 28519 | 1 | close |  | 100.54 | 68624.46 |

**Total profit: 122001.3999999999**

**MACD + Donchian channel**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| date | position\_id | name | price | qty | type | initial\_margin | cost | net\_profit |
| 2/8/2018 | 9ede530d | HSI (Aug 2018) | 27917 | 1 | short | 118647.25 | 100.54 |  |
| 8/8/2018 | 9ede530d | HSI (Aug 2018) | 28234 | 1 | close |  | 100.54 | -15950.54 |
| 15/8/2018 | e5cd3fc8 | HSI (Aug 2018) | 27439 | 1 | short | 116615.75 | 100.54 |  |
| 16/8/2018 | 22bdd25b | HSI (Aug 2018) | 27004 | 1 | short | 114767 | 100.54 |  |
| 22/8/2018 | e5cd3fc8 | HSI (Aug 2018) | 27855 | 1 | close |  | 100.54 | -20900.54 |
| 22/8/2018 | 22bdd25b | HSI (Aug 2018) | 27855 | 1 | close |  | 100.54 | -42650.54 |
| 11/9/2018 | ba230ed9 | HSI (Sep 2018) | 26500.5 | 1 | short | 112627.125 | 100.54 |  |
| 19/9/2018 | ba230ed9 | HSI (Sep 2018) | 27411 | 1 | close |  | 100.54 | -45625.54 |
| 11/10/2018 | 7350a185 | HSI (Oct 2018) | 25689.5 | 1 | short | 109180.375 | 100.54 |  |
| 25/10/2018 | 830e8cdd | HSI (Oct 2018) | 25004.5 | 1 | short | 106269.125 | 100.54 |  |
| 30/10/2018 | 7350a185 | HSI (Oct 2018) | 24722 | 1 | close |  | 100.54 | 48274.46 |
| 30/10/2018 | a352c5e9 | HSI (Nov 2018) | 24787 | 1 | short | 105344.75 | 100.54 |  |
| 30/10/2018 | a352c5e9 | HSI (Nov 2018) | 24722 | 1 | close |  | 100.54 | 3149.46 |
| 30/10/2018 | 7e7d9d9f | HSI (Nov 2018) | 24787 | 1 | short | 105344.75 | 100.54 |  |
| 1/11/2018 | 7e7d9d9f | HSI (Nov 2018) | 25342 | 1 | close |  | 100.54 | -27850.54 |
| 29/11/2018 | 830e8cdd | HSI (Oct 2018) | 26590 | 1 | close |  | 100.54 | -79375.54 |
| 29/11/2018 | 0765969f | HSI (Dec 2018) | 26677.5 | 1 | short | 113379.375 | 100.54 |  |
| 3/12/2018 | 13ec9453 | HSI (Dec 2018) | 26880.5 | 1 | long | 114242.125 | 100.54 |  |
| 10/12/2018 | 13ec9453 | HSI (Dec 2018) | 25704 | 1 | close |  | 100.54 | -58925.54 |
| 28/12/2018 | 0765969f | HSI (Dec 2018) | 25504 | 1 | close |  | 100.54 | 58574.46 |
| 28/12/2018 | 4c6325cc | HSI (Jan 2019) | 25424.5 | 1 | short | 108054.125 | 100.54 |  |
| 2/1/2019 | 3c17ffd0 | HSI (Jan 2019) | 25421.5 | 1 | short | 108041.375 | 100.54 |  |
| 8/1/2019 | 4c6325cc | HSI (Jan 2019) | 25903 | 1 | close |  | 100.54 | -24025.54 |
| 8/1/2019 | 3c17ffd0 | HSI (Jan 2019) | 25903 | 1 | close |  | 100.54 | -24175.54 |
| 11/1/2019 | 214a0a14 | HSI (Jan 2019) | 26603.5 | 1 | long | 113064.875 | 100.54 |  |
| 15/1/2019 | c9fe912f | HSI (Jan 2019) | 26564 | 1 | long | 112897 | 100.54 |  |
| 16/1/2019 | b93e24c4 | HSI (Jan 2019) | 26748.5 | 1 | long | 113681.125 | 100.54 |  |
| 18/1/2019 | cd781aaf | HSI (Jan 2019) | 26954 | 1 | long | 114554.5 | 100.54 |  |
| 21/1/2019 | d2523a40 | HSI (Jan 2019) | 27187 | 1 | long | 115544.75 | 100.54 |  |
| 30/1/2019 | 214a0a14 | HSI (Jan 2019) | 27552 | 1 | close |  | 100.54 | 47324.46 |
| 30/1/2019 | ba8a3f6c | HSI (Feb 2019) | 27511 | 1 | long | 116921.75 | 100.54 |  |
| 30/1/2019 | b93e24c4 | HSI (Jan 2019) | 27552 | 1 | close |  | 100.54 | 40074.46 |
| 30/1/2019 | c3ec7a19 | HSI (Feb 2019) | 27511 | 1 | long | 116921.75 | 100.54 |  |
| 30/1/2019 | d2523a40 | HSI (Jan 2019) | 27552 | 1 | close |  | 100.54 | 18149.46 |
| 30/1/2019 | 31e6ee53 | HSI (Feb 2019) | 27511 | 1 | long | 116921.75 | 100.54 |  |
| 30/1/2019 | c3ec7a19 | HSI (Feb 2019) | 27552 | 1 | close |  | 100.54 | 1949.46 |
| 30/1/2019 | cc5070ce | HSI (Feb 2019) | 27511 | 1 | long | 116921.75 | 100.54 |  |
| 30/1/2019 | cc5070ce | HSI (Feb 2019) | 27552 | 1 | close |  | 100.54 | 1949.46 |
| 30/1/2019 | 8e0307c0 | HSI (Feb 2019) | 27511 | 1 | long | 116921.75 | 100.54 |  |
| 31/1/2019 | fb98253c | HSI (Feb 2019) | 27851 | 1 | long | 118366.75 | 100.54 |  |
| 19/2/2019 | ba8a3f6c | HSI (Feb 2019) | 28155 | 1 | close |  | 100.54 | 32099.46 |
| 19/2/2019 | 31e6ee53 | HSI (Feb 2019) | 28155 | 1 | close |  | 100.54 | 32099.46 |
| 19/2/2019 | 8e0307c0 | HSI (Feb 2019) | 28155 | 1 | close |  | 100.54 | 32099.46 |
| 19/2/2019 | fb98253c | HSI (Feb 2019) | 28155 | 1 | close |  | 100.54 | 15099.46 |
| 20/2/2019 | 9a8af920 | HSI (Feb 2019) | 28305.5 | 1 | long | 120298.375 | 100.54 |  |
| 21/2/2019 | 0ce1243b | HSI (Feb 2019) | 28581 | 1 | long | 121469.25 | 100.54 |  |
| 22/2/2019 | h4uj8s57 | HSI (Feb 2019) | 28640.5 | 1 | long | 121722.125 | 100.54 |  |
| 25/2/2019 | 61df36fe | HSI (Feb 2019) | 28879 | 1 | long | 122735.75 | 100.54 |  |
| 27/2/2019 | c9fe912f | HSI (Jan 2019) | 28864 | 1 | close |  | 100.54 | 114899.46 |
| 27/2/2019 | 998063d7 | HSI (Mar 2019) | 28861.5 | 1 | long | 122661.375 | 100.54 |  |
| 27/2/2019 | 9a8af920 | HSI (Feb 2019) | 28864 | 1 | close |  | 100.54 | 27824.46 |
| 27/2/2019 | 4fca83ac | HSI (Mar 2019) | 28861.5 | 1 | long | 122661.375 | 100.54 |  |
| 27/2/2019 | h4uj8s57 | HSI (Feb 2019) | 28864 | 1 | close |  | 100.54 | 11074.46 |
| 27/2/2019 | 401d8516 | HSI (Mar 2019) | 28861.5 | 1 | long | 122661.375 | 100.54 |  |
| 27/2/2019 | 998063d7 | HSI (Mar 2019) | 28864 | 1 | close |  | 100.54 | 24.46 |
| 27/2/2019 | b44a593a | HSI (Mar 2019) | 28861.5 | 1 | long | 122661.375 | 100.54 |  |
| 27/2/2019 | 401d8516 | HSI (Mar 2019) | 28864 | 1 | close |  | 100.54 | 24.46 |
| 27/2/2019 | bba5e8f9 | HSI (Mar 2019) | 28861.5 | 1 | long | 122661.375 | 100.54 |  |
| 27/2/2019 | bba5e8f9 | HSI (Mar 2019) | 28864 | 1 | close |  | 100.54 | 24.46 |
| 27/2/2019 | 8580df18 | HSI (Mar 2019) | 28861.5 | 1 | long | 122661.375 | 100.54 |  |
| 28/2/2019 | 0ce1243b | HSI (Feb 2019) | 28666 | 1 | close |  | 100.54 | 4149.46 |
| 28/2/2019 | 61df36fe | HSI (Feb 2019) | 28666 | 1 | close |  | 100.54 | -10750.54 |
| 18/3/2019 | f3a047ff | HSI (Mar 2019) | 29241.5 | 1 | long | 124276.375 | 100.54 |  |
| 19/3/2019 | 7f79af24 | HSI (Mar 2019) | 29438 | 1 | long | 125111.5 | 100.54 |  |
| 21/3/2019 | 4fca83ac | HSI (Mar 2019) | 29117 | 1 | close |  | 100.54 | 12674.46 |
| 21/3/2019 | b44a593a | HSI (Mar 2019) | 29117 | 1 | close |  | 100.54 | 12674.46 |
| 21/3/2019 | 8580df18 | HSI (Mar 2019) | 29117 | 1 | close |  | 100.54 | 12674.46 |
| 21/3/2019 | f3a047ff | HSI (Mar 2019) | 29117 | 1 | close |  | 100.54 | -6325.54 |
| 21/3/2019 | 7f79af24 | HSI (Mar 2019) | 29117 | 1 | close |  | 100.54 | -16150.54 |
| 28/3/2019 | cd781aaf | HSI (Jan 2019) | 28719 | 1 | close |  | 100.54 | 88149.46 |
| 28/3/2019 | 32b8432e | HSI (Apr 2019) | 28716 | 1 | long | 122043 | 100.54 |  |
| 2/4/2019 | f76f5f31 | HSI (Apr 2019) | 29657 | 1 | long | 126042.25 | 100.54 |  |
| 3/4/2019 | afcd3162 | HSI (Apr 2019) | 29851.5 | 1 | long | 126868.875 | 100.54 |  |
| 18/4/2019 | 32b8432e | HSI (Apr 2019) | 29940 | 1 | close |  | 100.54 | 61099.46 |
| 18/4/2019 | f76f5f31 | HSI (Apr 2019) | 29940 | 1 | close |  | 100.54 | 14049.46 |
| 18/4/2019 | afcd3162 | HSI (Apr 2019) | 29940 | 1 | close |  | 100.54 | 4324.46 |
| 6/5/2019 | 592a232d | HSI (May 2019) | 29367 | 1 | short | 124809.75 | 100.54 |  |
| 9/5/2019 | 2b896786 | HSI (May 2019) | 28401.5 | 1 | short | 120706.375 | 100.54 |  |
| 23/5/2019 | a4a65569 | HSI (May 2019) | 27396.5 | 1 | short | 116435.125 | 100.54 |  |
| 30/5/2019 | 592a232d | HSI (May 2019) | 27100 | 1 | close |  | 100.54 | 113249.46 |
| 30/5/2019 | 5437ac4f | HSI (Jun 2019) | 27007.5 | 1 | short | 114781.875 | 100.54 |  |
| 30/5/2019 | a4a65569 | HSI (May 2019) | 27100 | 1 | close |  | 100.54 | 14724.46 |
| 30/5/2019 | 67e64914 | HSI (Jun 2019) | 27007.5 | 1 | short | 114781.875 | 100.54 |  |
| 30/5/2019 | 67e64914 | HSI (Jun 2019) | 27100 | 1 | close |  | 100.54 | -4725.54 |
| 30/5/2019 | d12ef0b9 | HSI (Jun 2019) | 27007.5 | 1 | short | 114781.875 | 100.54 |  |
| 31/5/2019 | 87745f42 | HSI (Jun 2019) | 26795.5 | 1 | short | 113880.875 | 100.54 |  |
| 10/6/2019 | 5437ac4f | HSI (Jun 2019) | 27469 | 1 | close |  | 100.54 | -23175.54 |
| 10/6/2019 | d12ef0b9 | HSI (Jun 2019) | 27469 | 1 | close |  | 100.54 | -23175.54 |
| 10/6/2019 | 87745f42 | HSI (Jun 2019) | 27469 | 1 | close |  | 100.54 | -33775.54 |
| 19/6/2019 | 93ecbfee | HSI (Jun 2019) | 27822 | 1 | long | 118243.5 | 100.54 |  |
| 20/6/2019 | 891b1143 | HSI (Jun 2019) | 28299.5 | 1 | long | 120272.875 | 100.54 |  |
| 27/6/2019 | 2b896786 | HSI (May 2019) | 28519 | 1 | close |  | 100.54 | -5975.54 |
| 27/6/2019 | 93ecbfee | HSI (Jun 2019) | 28519 | 1 | close |  | 100.54 | 34749.46 |
| 27/6/2019 | 891b1143 | HSI (Jun 2019) | 28519 | 1 | close |  | 100.54 | 10874.46 |

**Total profit: 395123.85999999894**