GFTD REPORT

First Meeting

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Outline

- 1 GFTD Strategy
 - Introduction
 - Specific Strategy
- 2 Results and Problems
 - Results
 - Problems

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Introduction

GFTD is based on the Time Selecting System TD and aimed at select trade time on market index.

- The main logic is that we expect a reversal after a continuous rising or falling tendency.
- There are three parameters n_1, n_2, n_3 in this strategy.

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Buy Trade Selection

• Closing price of day i is lower than that of day i- n_1 . If this tendency continues for n_2 days, we start a count signal.

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- Closing price of day i is lower than that of day i-n₁. If this tendency continues for n₂ days, we start a count signal.
- In the counting value process, if the three condition A,B and C are all satisfied, count value + 1
 - A. Closing price of day i is higher than the highest price of day i-2

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- In the counting value process, if the three condition A,B and C are all satisfied, count value + 1
 - A. Closing price of day i is higher than the highest price of day i-2
 - B. The highest price of day i is higher than that of day i-1

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 - B. The highest price of day i is higher than that of day i-1
 - C. Closing price of day i is higher than that of day i-1
- If the count value reaches n_3 , we start a buy trade.

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- When to stop?

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 - $lue{}$ C. Closing price of day i is higher than that of day i-1
- If the count value reaches n_3 , we start a buy trade.
- When to stop?
 - A. If there forms a sell trade.



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 - A. Closing price of day i is higher than the highest price of day i-2
 - B. The highest price of day i is higher than that of day i-1
 - C. Closing price of day i is higher than that of day i-1
- If the count value reaches n_3 , we start a buy trade.
- When to stop?
 - A. If there forms a sell trade.
 - B. In the process of counting value, we record the lowest price of the market index. Once the closing price in buy trade is lower than the record price, we stop this buy trade.

Sell Trade Selection

■ Closing price of day i is higher than that of day i-n₁. If this tendency continues for n₂ days, we start a count signal.

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- In the counting value process, if the three condition A,B and C are all satisfied, count value + 1
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 - B. The lowest price of day i is lower than that of day i-1

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- When to stop?
 - A. If there forms a buy trade.



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 - B. The lowest price of day i is lower than that of day i-1
 - C. Closing price of day i is lower than that of day i-1
- If the count value reaches n₃, we start a sell trade.
- When to stop?
 - A. If there forms a buy trade.
 - B. In the process of counting value, we record the highest price of the market index. Once the closing price in buy trade is higher than the record price, we stop this sell trade.

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Evaluation of this Model

Index name Cumulative Return

Annual Return
Transaction Count
Win Count,Lose Count
Winning Percentage
Average Return per Transaction
Average Winning Return per Transaction
Average Losing Return per Transaction
Odds
Maximum Drawdown
Maximum Number of Consecutive Wins

Maximum Number of Consecutive Loses

Description

Return Performance
Return Performance
Reflect the Selection Times
Reflect the effectiveness
Return Performance
Return Performance
Single Transaction Return
Single Transaction Risk
Winning Return/Losing Return
Risk Performance
Reflect return in a period

Reflect risk in a period

Evaluation of this Model

We get 11 indexes and three comparison graphs to evaluate the model.

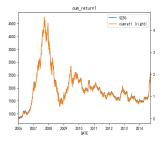


Figure: Cumulative Return and Market Index

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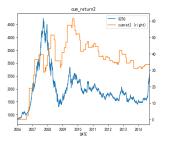


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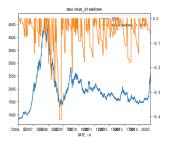


Figure: Maximum Drawdown and Market Index

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■ In-sample: 2006-2014 Out-sample: 2015-2017

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n_1	n_2	n ₃
2	2	6
3	2	6
3	2	5
3	2	5
	2 3 3	2 2 3 2 3 2

Problems

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Parameter Estimation

Hope to find unbiased estimation for parameters n_1, n_2 and n_3

Robustness

The performance of parameters that near the optimal parameter combination is not very well.

Sample selection

Hope to explore different in-sample period such as 2009-2017 while out-sample is then 2006-2008.

Summary

- This model can be edified flexibly and can satisfy arbitrary period.
- This model is over fitting when finding the optimal parameters.
- Outlook
 - Build unbiased estimation of such parameters and develop more details in this model.
 - Build a more scientific and complicated assess function of the model.