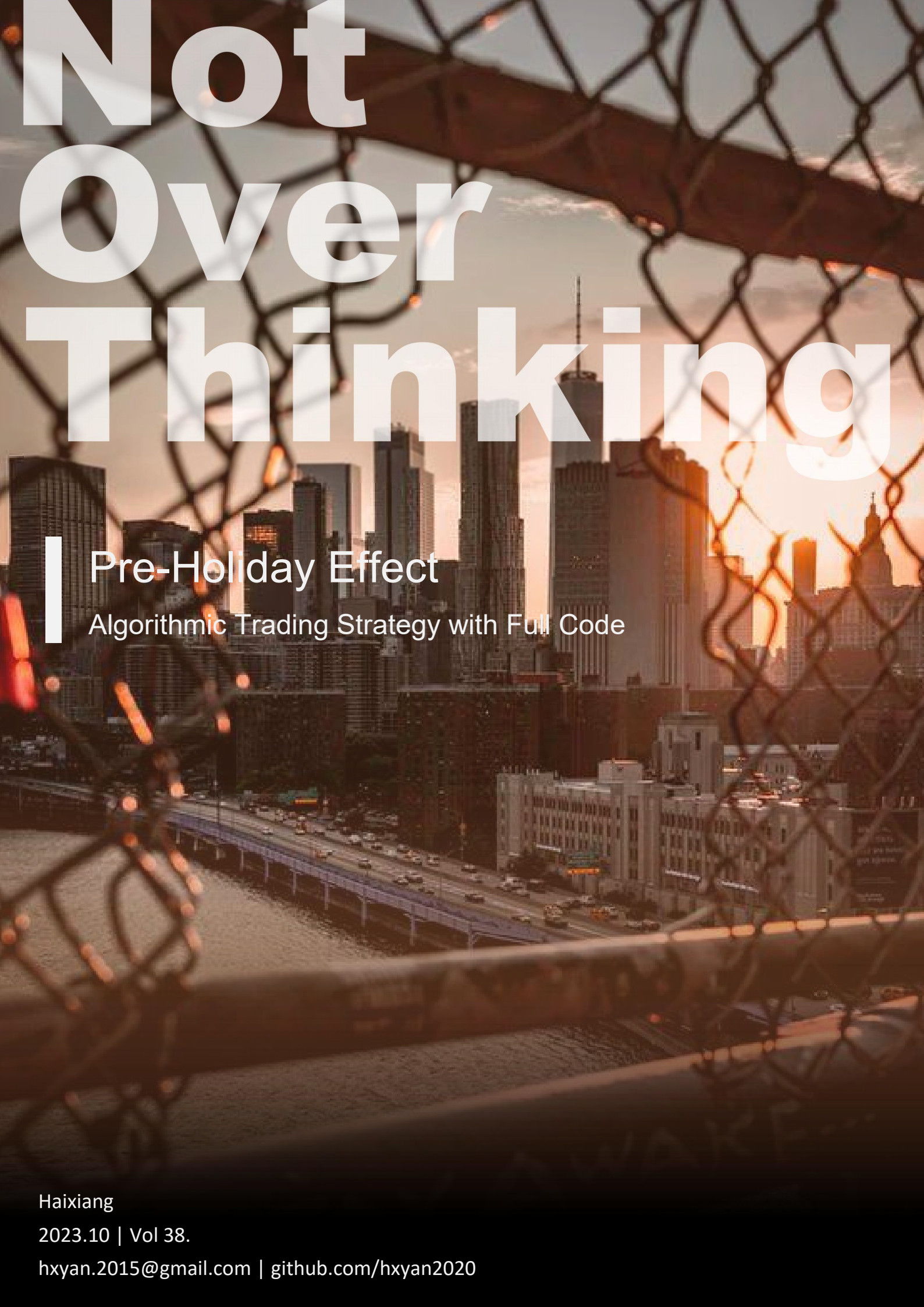

Not Over Thinking

Pre-Holiday Effect

Algorithmic Trading Strategy with Full Code

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STRATEGY & ECONOMIC RATIONALE

Investors use some simple investment vehicles to gain exposure to US equity market (ETF, fund, CFD or future) only during days preceding holiday days (New Year's Day, Martin Luther King Jr. Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Election Day, Thanksgiving Day, Christmas Day). Investors stay in cash during other trading days. The anomaly isn't limited only to the US market but seems to work well also in other countries; therefore, it could be broadened to include pre-holiday days for local holidays in other markets.

BUY	SELL
(see above)	(see above)

PARAMETER & VARIABLES

PARAMETER	VALUE
MARKETS TRADED	Equity
FINANCIAL INSTRUMENTS	CFDs, ETFs, funds, futures
REGION	United States
PERIOD OF REBALANCING	Daily
NO. OF TRADED INSTRUMENTS	1
WEIGHTING	Equal weighting
LOOKBACK PERIODS	N/A
LONG/SHORT	Long only

ALGORITHM

```
from AlgorithmImports import *

class PreHolidayEffect(QCAlgorithm):

    def Initialize(self):
        self.SetStartDate(2000, 1, 1)
        self.SetCash(100000)

        self.symbol = self.AddEquity("SPY", Resolution.Daily).Symbol

    def OnData(self, data):
        calendar1 = self.TradingCalendar.GetDaysByType(TradingDayType.PublicHoliday,
self.Time, self.Time+timedelta(days=2))
        calendar2 = self.TradingCalendar.GetDaysByType(TradingDayType.Weekend, self.Time,
self.Time+timedelta(days=2))

        holidays = [i.Date for i in calendar1]
        weekends = [i.Date for i in calendar2]

        # subtract weekends in all holidays
        public_holidays = list(set(holidays) - set(weekends))

        if not self.Portfolio.Invested and len(public_holidays)>0:
```

```
            self.SetHoldings(self.symbol, 1)
        elif self.Portfolio.Invested and len(public_holidays)==0:
            self.Liquidate()
```

BACKTESTING PERFORMANCE

Fig 1. Overall Performance

PSR	0.001%	Sharpe Ratio	0.269
Total Trades	520	Average Win	1.01%
Average Loss	-0.85%	Compounding Annual Return	1.573%
Drawdown	13.500%	Expectancy	0.178
Net Profit	43.688%	Loss Rate	46%
Win Rate	54%	Profit-Loss Ratio	1.19
Alpha	0.008	Beta	0.073
Annual Standard Deviation	0.044	Annual Variance	0.002
Information Ratio	-0.285	Tracking Error	0.156
Treynor Ratio	0.162	Total Fees	$2475.73
Estimated Strategy Capacity	$870000000.00	Lowest Capacity Asset	SPY R735QTJ8XC9X

Fig 2. Performance Metrics