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## Housekeeping

```
clear all;
close all;
clc;

load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSA.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSB.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSC.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSD.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSE.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSF.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WINA.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WINB.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WINC.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WIND.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WINE.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WINF.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WINNERS.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSERS.mat')
```

*Error using load*

---

*Unable to read file '/Users/jenschristensen/Documents/Master Thesis/NEW DATA/ultimate/LOSA.mat'. No such file or directory.*

*Error in PORTFOLIOOPTIMIZATION (line 6)  
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/  
ultimate/LOSA.mat')*

## winwin - loslos

```
WW1 = table2array(WINA(1,1));  
WW2 = table2array(WINA(1,2));  
WW3 = table2array(WINA(1,3));  
  
WWW = table2array(WINNERS);  
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));  
  
for K = 2:497  
    WW1 = table2array(WINA(K,1));  
    WW2 = table2array(WINA(K,2));  
    WW3 = table2array(WINA(K,3));  
  
    WWW = table2array(WINNERS);  
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));  
    WA = [WA;WAA];  
end  
  
DATES = WINNERS.MONTH  
WA = transpose(table2array(WA));  
WA(isnan(WA))=0;  
BESTA = mean(WA);  
BESTA = transpose(BESTA);  
WONEA = table(DATES,BESTA);  
  
LL1 = table2array(LOSA(1,1));  
LL2 = table2array(LOSA(1,2));  
LL3 = table2array(LOSA(1,3));  
  
LLL = table2array(LOSERS);  
LA = table(LL1,LLL(1,LL1),LLL(1,LL2));  
  
for K = 2:497  
    LL1 = table2array(LOSA(K,1));  
    LL2 = table2array(LOSA(K,2));  
    LL3 = table2array(LOSA(K,3));  
  
    LLL = table2array(LOSERS);  
    LAA = table(LL1,LLL(1,LL1),LLL(1,LL2));  
    LA = [LA;LAA];  
end  
  
LA = transpose(table2array(LA));  
LA(isnan(LA))=0;  
WORSTA = mean(LA);
```

---

```

WORSTA = transpose(WORSTA);
LONEA = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINB(1,1));
WW2 = table2array(WINB(1,2));
WW3 = table2array(WINB(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:496
    WW1 = table2array(WINB(K,1));
    WW2 = table2array(WINB(K,2));
    WW3 = table2array(WINB(K,3));

    WWW = table2array(WINNERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
NONEB = table(DATES,BESTA);

LL1 = table2array(LOSB(1,1));
LL2 = table2array(LOSB(1,2));
LL3 = table2array(LOSB(1,3));

LLL = table2array(LOSERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:496
    LL1 = table2array(LOSB(K,1));
    LL2 = table2array(LOSB(K,2));
    LL3 = table2array(LOSB(K,3));

    LLLL = table2array(LOSERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
NONEB = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];

```

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---

```

DATES = WINNERS.MONTH

WW1 = table2array(WINC(1,1));
WW2 = table2array(WINC(1,2));
WW3 = table2array(WINC(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:495
    WW1 = table2array(WINC(K,1));
    WW2 = table2array(WINC(K,2));
    WW3 = table2array(WINC(K,3));

    WWW = table2array(WINNERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
NONEC = table(DATES,BESTA);

LL1 = table2array(LOSC(1,1));
LL2 = table2array(LOSC(1,2));
LL3 = table2array(LOSC(1,3));

LLL = table2array(LOSERS);
LA = table(LL1,LLL(1,LL1),LLL(1,LL2));

for K = 2:495
    LL1 = table2array(LOSC(K,1));
    LL2 = table2array(LOSC(K,2));
    LL3 = table2array(LOSC(K,3));

    LLLL = table2array(LOSERS);
    LAA = table(LL1,LLL(1,LL1),LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
NONEC = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WIND(1,1));
WW2 = table2array(WIND(1,2));
WW3 = table2array(WIND(1,3));

```

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```

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:494
    WW1 = table2array(WIND(K,1));
    WW2 = table2array(WIND(K,2));
    WW3 = table2array(WIND(K,3));

    WWW = table2array(WINNERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONED = table(DATES,BESTA);

LL1 = table2array(LOSD(1,1));
LL2 = table2array(LOSD(1,2));
LL3 = table2array(LOSD(1,3));

LLL = table2array(LOSERS);
LA = table(LLL(1,LL1),LLL(1,LL2));

for K = 2:494
    LL1 = table2array(LOSD(K,1));
    LL2 = table2array(LOSD(K,2));
    LL3 = table2array(LOSD(K,3));

    LLLL = table2array(LOSERS);
    LAA = table(LLL(K,LL1),LLL(K,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONED = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINE(1,1));
WW2 = table2array(WINE(1,2));
WW3 = table2array(WINE(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:493

```

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```

WW1 = table2array(WINE(1,1));
WW2 = table2array(WINE(1,2));
WW3 = table2array(WINE(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));
WA = [WA;WA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEE = table(DATES,BESTA);

LL1 = table2array(LOSE(1,1));
LL2 = table2array(LOSE(1,2));
LL3 = table2array(LOSE(1,3));

LLL = table2array(LOSERS);
LA = table(LLL(1,LL1),LLL(1,LL2));

for K = 2:493
    LL1 = table2array(LOSE(K,1));
    LL2 = table2array(LOSE(K,2));
    LL3 = table2array(LOSE(K,3));

    LLLL = table2array(LOSERS);
    LAA = table(LLL(K,LL1),LLL(K,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEE = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINF(1,1));
WW2 = table2array(WINF(1,2));
WW3 = table2array(WINF(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:492
    WW1 = table2array(WINF(K,1));
    WW2 = table2array(WINF(K,2));
    WW3 = table2array(WINF(K,3));

    WWW = table2array(WINNERS);

```

---

---

```

WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEF = table(DATES,BESTA);

LL1 = table2array(LOSF(1,1));
LL2 = table2array(LOSF(1,2));
LL3 = table2array(LOSF(1,3));

LLL = table2array(LOSERS);
LA = table(LLL(1,LL1),LLL(1,LL2));

for K = 2:492
    LL1 = table2array(LOSF(K,1));
    LL2 = table2array(LOSF(K,2));
    LL3 = table2array(LOSF(K,3));

    LLLL = table2array(LOSERS);
    LAA = table(LLL(K,LL1),LLL(K,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEF = table(DATES,WORSTA);

```

## WINWIN LOSLOS

```

WONEA = table2timetable(WONEA);
WONEB = table2timetable(WONEB);
WONEC = table2timetable(WONEC);
WONED = table2timetable(WONED);
WONEE = table2timetable(WONEE);
WONEF = table2timetable(WONEF);
LONEA = table2timetable(LONEA);
LONEB = table2timetable(LONEB);
LONEC = table2timetable(LONEC);
LONED = table2timetable(LONED);
LONEE = table2timetable(LONEE);
LONEF = table2timetable(LONEF);

WINWIN = [WONEA;WONEB;WONEC;WONED;WONEE;WONEF];
WINWIN = retime(WINWIN,'monthly','mean');

LOSLOS = [LONEA;LONEB;LONEC;LONED;LONEE;LONEF];
LOSLOS = retime(LOSLOS,'monthly','mean');

```

---

---

```
WINWINLOSLOS = timetable(WINWIN.DATES,WINWIN.BESTA,LOSLOS.WORSTA,
(WINWIN.BESTA-LOSLOS.WORSTA));
WINWINLOSLOS.Properties.VariableNames = {'P1' 'P10' 'TRADINGRET'};
```

```
load('~/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WINNERS.mat')
load('~/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSERS.mat')
```

## winwin - loslos

```
WW1 = table2array(WINA(1,1));
WW2 = table2array(WINA(1,2));
WW3 = table2array(WINA(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:497
    WW1 = table2array(WINA(K,1));
    WW2 = table2array(WINA(K,2));
    WW3 = table2array(WINA(K,3));

    WWW = table2array(WINNERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

DATES = WINNERS.MONTH
WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
NONEA = table(DATES,BESTA);

LL1 = table2array(LOSA(1,1));
LL2 = table2array(LOSA(1,2));
LL3 = table2array(LOSA(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:497
    LL1 = table2array(LOSA(K,1));
    LL2 = table2array(LOSA(K,2));
    LL3 = table2array(LOSA(K,3));

    LLL = table2array(WINNERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
```

---

```

LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEA = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINB(1,1));
WW2 = table2array(WINB(1,2));
WW3 = table2array(WINB(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:496
    WW1 = table2array(WINB(K,1));
    WW2 = table2array(WINB(K,2));
    WW3 = table2array(WINB(K,3));

    WWW = table2array(WINNERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEB = table(DATES,BESTA);

LL1 = table2array(LOSB(1,1));
LL2 = table2array(LOSB(1,2));
LL3 = table2array(LOSB(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:496
    LL1 = table2array(LOSB(K,1));
    LL2 = table2array(LOSB(K,2));
    LL3 = table2array(LOSB(K,3));

    LLL = table2array(WINNERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEB = table(DATES,WORSTA);

```

---

---

```

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINC(1,1));
WW2 = table2array(WINC(1,2));
WW3 = table2array(WINC(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:495
    WW1 = table2array(WINC(K,1));
    WW2 = table2array(WINC(K,2));
    WW3 = table2array(WINC(K,3));

    WWW = table2array(WINNERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
NONEC = table(DATES,BESTA);

LL1 = table2array(LOSC(1,1));
LL2 = table2array(LOSC(1,2));
LL3 = table2array(LOSC(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:495
    LL1 = table2array(LOSC(K,1));
    LL2 = table2array(LOSC(K,2));
    LL3 = table2array(LOSC(K,3));

    LLLL = table2array(WINNERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
NONEC = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WIND(1,1));

```

---

---

```

WW2 = table2array(WIND(1,2));
WW3 = table2array(WIND(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:494
    WW1 = table2array(WIND(K,1));
    WW2 = table2array(WIND(K,2));
    WW3 = table2array(WIND(K,3));

    WWW = table2array(WINNERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONED = table(DATES,BESTA);

LL1 = table2array(LOSD(1,1));
LL2 = table2array(LOSD(1,2));
LL3 = table2array(LOSD(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL1),LLL(1,LL2));

for K = 2:494
    LL1 = table2array(LOSD(K,1));
    LL2 = table2array(LOSD(K,2));
    LL3 = table2array(LOSD(K,3));

    LLLL = table2array(WINNERS);
    LAA = table(LL1,LLL(1,LL1),LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONED = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINE(1,1));
WW2 = table2array(WINE(1,2));
WW3 = table2array(WINE(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

```

---

---

```

for K = 2:493
    WW1 = table2array(WINE(K,1));
    WW2 = table2array(WINE(K,2));
    WW3 = table2array(WINE(K,3));

    WWW = table2array(WINNERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEE = table(DATES,BESTA);

LL1 = table2array(LOSE(1,1));
LL2 = table2array(LOSE(1,2));
LL3 = table2array(LOSE(1,3));

LLL = table2array(WINNERS);
LA = table(LLL(1,LL1),LLL(1,LL2));

for K = 2:493
    LL1 = table2array(LOSE(K,1));
    LL2 = table2array(LOSE(K,2));
    LL3 = table2array(LOSE(K,3));

    LLL = table2array(WINNERS);
    LAA = table(LLL(K,LL1),LLL(K,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEE = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINF(1,1));
WW2 = table2array(WINF(1,2));
WW3 = table2array(WINF(1,3));

WWW = table2array(WINNERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:492
    WW1 = table2array(WINF(K,1));
    WW2 = table2array(WINF(K,2));
    WW3 = table2array(WINF(K,3));

```

---

---

```

WWW = table2array(WINNERS);
WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEF = table(DATES,BESTA);

LL1 = table2array(LOSF(1,1));
LL2 = table2array(LOSF(1,2));
LL3 = table2array(LOSF(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:492
    LL1 = table2array(LOSF(K,1));
    LL2 = table2array(LOSF(K,2));
    LL3 = table2array(LOSF(K,3));

    LLL = table2array(WINNERS);
    LAA = table(LL1,LAA);
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEF = table(DATES,WORSTA);

```

## WINWIN LOSLOS

```

WONEA = table2timetable(WONEA);
WONEB = table2timetable(WONEB);
WONEC = table2timetable(WONEC);
WONED = table2timetable(WONED);
WONEE = table2timetable(WONEE);
WONEF = table2timetable(WONEF);
LONEA = table2timetable(LONEA);
LONEB = table2timetable(LONEB);
LONEC = table2timetable(LONEC);
LONED = table2timetable(LONED);
LONEE = table2timetable(LONEE);
LONEF = table2timetable(LONEF);

WINWIN = [WONEA;WONEB;WONEC;WONED;WONEE;WONEF];
WINWIN = retime(WINWIN,'monthly','mean');

WINLOS = [LONEA;LONEB;LONEC;LONED;LONEE;LONEF];

```

---

---

```

WINLOS = retime(WINLOS,'monthly','mean');

WINWINWINLOS = timetable(WINWIN.DATES,WINWIN.BESTA,WINLOS.WORSTA,
(WINWIN.BESTA-WINLOS.WORSTA));
WINWINWINLOS.Properties.VariableNames = {'P1' 'P10' 'TRADINGRET'};

load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WINNERS.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSERS.mat')

```

## winwin - loslos

```

WW1 = table2array(WINA(1,1));
WW2 = table2array(WINA(1,2));
WW3 = table2array(WINA(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:497
    WW1 = table2array(WINA(K,1));
    WW2 = table2array(WINA(K,2));
    WW3 = table2array(WINA(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

DATES = WINNERS.MONTH
WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
NONEA = table(DATES,BESTA);

LL1 = table2array(LOSA(1,1));
LL2 = table2array(LOSA(1,2));
LL3 = table2array(LOSA(1,3));

LLL = table2array(LOSERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:497
    LL1 = table2array(LOSA(K,1));
    LL2 = table2array(LOSA(K,2));
    LL3 = table2array(LOSA(K,3));

    LLLL = table2array(LOSERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

```

---

---

```

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEA = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINB(1,1));
WW2 = table2array(WINB(1,2));
WW3 = table2array(WINB(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:496
    WW1 = table2array(WINB(K,1));
    WW2 = table2array(WINB(K,2));
    WW3 = table2array(WINB(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEB = table(DATES,BESTA);

LL1 = table2array(LOSB(1,1));
LL2 = table2array(LOSB(1,2));
LL3 = table2array(LOSB(1,3));

LLL = table2array(LOSERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:496
    LL1 = table2array(LOSB(K,1));
    LL2 = table2array(LOSB(K,2));
    LL3 = table2array(LOSB(K,3));

    LLL = table2array(LOSERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEB = table(DATES,WORSTA);

```

---

---

```

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINC(1,1));
WW2 = table2array(WINC(1,2));
WW3 = table2array(WINC(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:495
    WW1 = table2array(WINC(K,1));
    WW2 = table2array(WINC(K,2));
    WW3 = table2array(WINC(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
NONEC = table(DATES,BESTA);

LL1 = table2array(LOSC(1,1));
LL2 = table2array(LOSC(1,2));
LL3 = table2array(LOSC(1,3));

LLL = table2array(LOSERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:495
    LL1 = table2array(LOSC(K,1));
    LL2 = table2array(LOSC(K,2));
    LL3 = table2array(LOSC(K,3));

    LLLL = table2array(LOSERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
NONEC = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WIND(1,1));

```

---

---

```

WW2 = table2array(WIND(1,2));
WW3 = table2array(WIND(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:494
    WW1 = table2array(WIND(K,1));
    WW2 = table2array(WIND(K,2));
    WW3 = table2array(WIND(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONED = table(DATES,BESTA);

LL1 = table2array(LOSD(1,1));
LL2 = table2array(LOSD(1,2));
LL3 = table2array(LOSD(1,3));

LLL = table2array(LOSERS);
LA = table(LL1,LLL(1,LL1),LLL(1,LL2));

for K = 2:494
    LL1 = table2array(LOSD(K,1));
    LL2 = table2array(LOSD(K,2));
    LL3 = table2array(LOSD(K,3));

    LLLL = table2array(LOSERS);
    LAA = table(LL1,LLL(1,LL1),LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONED = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINE(1,1));
WW2 = table2array(WINE(1,2));
WW3 = table2array(WINE(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

```

---

---

```

for K = 2:493
    WW1 = table2array(WINE(K,1));
    WW2 = table2array(WINE(K,2));
    WW3 = table2array(WINE(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEE = table(DATES,BESTA);

LL1 = table2array(LOSE(1,1));
LL2 = table2array(LOSE(1,2));
LL3 = table2array(LOSE(1,3));

LLL = table2array(LOSERS);
LA = table(LLL(1,LL1),LLL(1,LL2));

for K = 2:493
    LL1 = table2array(LOSE(K,1));
    LL2 = table2array(LOSE(K,2));
    LL3 = table2array(LOSE(K,3));

    LLL = table2array(LOSERS);
    LAA = table(LLL(K,LL1),LLL(K,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEE = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINF(1,1));
WW2 = table2array(WINF(1,2));
WW3 = table2array(WINF(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:492
    WW1 = table2array(WINF(K,1));
    WW2 = table2array(WINF(K,2));
    WW3 = table2array(WINF(K,3));

```

---

---

```

WWW = table2array(LOSERS);
WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEF = table(DATES,BESTA);

LL1 = table2array(LOSF(1,1));
LL2 = table2array(LOSF(1,2));
LL3 = table2array(LOSF(1,3));

LLL = table2array(LOSERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:492
    LL1 = table2array(LOSF(K,1));
    LL2 = table2array(LOSF(K,2));
    LL3 = table2array(LOSF(K,3));

    LLL = table2array(LOSERS);
    LAA = table(LL1,K,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEF = table(DATES,WORSTA);

```

## WINWIN LOSLOS

```

WONEA = table2timetable(WONEA);
WONEB = table2timetable(WONEB);
WONEC = table2timetable(WONEC);
WONED = table2timetable(WONED);
WONEE = table2timetable(WONEE);
WONEF = table2timetable(WONEF);
LONEA = table2timetable(LONEA);
LONEB = table2timetable(LONEB);
LONEC = table2timetable(LONEC);
LONED = table2timetable(LONED);
LONEE = table2timetable(LONEE);
LONEF = table2timetable(LONEF);

WINWIN = [WONEA;WONEB;WONEC;WONED;WONEE;WONEF];
WINWIN = retime(WINWIN,'monthly','mean');

LOSLOS = [LONEA;LONEB;LONEC;LONED;LONEE;LONEF];

```

---

---

```

LOSLOS = retime(LOSLOS,'monthly','mean');

LOSWINLOSSLOS = timetable(WINWIN.DATES,WINWIN.BESTA,LOSLOS.WORSTA,
(WINWIN.BESTA-LOSLOS.WORSTA));
LOSWINLOSSLOS.Properties.VariableNames = {'P1' 'P10' 'TRADINGRET'};

load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/WINNERS.mat')
load('/Users/jenschristensen/Documents/Master Thesis/NEW DATA/
ultimate/LOSERS.mat')

```

## winwin - loslos

```

WW1 = table2array(WINA(1,1));
WW2 = table2array(WINA(1,2));
WW3 = table2array(WINA(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:497
    WW1 = table2array(WINA(K,1));
    WW2 = table2array(WINA(K,2));
    WW3 = table2array(WINA(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

DATES = WINNERS.MONTH
WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
NONEA = table(DATES,BESTA);

LL1 = table2array(LOSA(1,1));
LL2 = table2array(LOSA(1,2));
LL3 = table2array(LOSA(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:497
    LL1 = table2array(LOSA(K,1));
    LL2 = table2array(LOSA(K,2));
    LL3 = table2array(LOSA(K,3));

    LLL = table2array(WINNERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

```

---

---

```

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEA = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINB(1,1));
WW2 = table2array(WINB(1,2));
WW3 = table2array(WINB(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:496
    WW1 = table2array(WINB(K,1));
    WW2 = table2array(WINB(K,2));
    WW3 = table2array(WINB(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEB = table(DATES,BESTA);

LL1 = table2array(LOSB(1,1));
LL2 = table2array(LOSB(1,2));
LL3 = table2array(LOSB(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:496
    LL1 = table2array(LOSB(K,1));
    LL2 = table2array(LOSB(K,2));
    LL3 = table2array(LOSB(K,3));

    LLL = table2array(WINNERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEB = table(DATES,WORSTA);

```

---

---

```

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINC(1,1));
WW2 = table2array(WINC(1,2));
WW3 = table2array(WINC(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:495
    WW1 = table2array(WINC(K,1));
    WW2 = table2array(WINC(K,2));
    WW3 = table2array(WINC(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
NONEC = table(DATES,BESTA);

LL1 = table2array(LOSC(1,1));
LL2 = table2array(LOSC(1,2));
LL3 = table2array(LOSC(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:495
    LL1 = table2array(LOSC(K,1));
    LL2 = table2array(LOSC(K,2));
    LL3 = table2array(LOSC(K,3));

    LLL = table2array(WINNERS);
    LAA = table(LL1,LLL(K,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
NONEC = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WIND(1,1));

```

---

---

```

WW2 = table2array(WIND(1,2));
WW3 = table2array(WIND(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:494
    WW1 = table2array(WIND(K,1));
    WW2 = table2array(WIND(K,2));
    WW3 = table2array(WIND(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONED = table(DATES,BESTA);

LL1 = table2array(LOSD(1,1));
LL2 = table2array(LOSD(1,2));
LL3 = table2array(LOSD(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:494
    LL1 = table2array(LOSD(K,1));
    LL2 = table2array(LOSD(K,2));
    LL3 = table2array(LOSD(K,3));

    LLLL = table2array(WINNERS);
    LAA = table(LL1,LLL(1,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONED = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINE(1,1));
WW2 = table2array(WINE(1,2));
WW3 = table2array(WINE(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

```

---

---

```

for K = 2:493
    WW1 = table2array(WINE(K,1));
    WW2 = table2array(WINE(K,2));
    WW3 = table2array(WINE(K,3));

    WWW = table2array(LOSERS);
    WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
    WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEE = table(DATES,BESTA);

LL1 = table2array(LOSE(1,1));
LL2 = table2array(LOSE(1,2));
LL3 = table2array(LOSE(1,3));

LLL = table2array(WINNERS);
LA = table(LLL(1,LL1),LLL(1,LL2));

for K = 2:493
    LL1 = table2array(LOSE(K,1));
    LL2 = table2array(LOSE(K,2));
    LL3 = table2array(LOSE(K,3));

    LLL = table2array(WINNERS);
    LAA = table(LLL(K,LL1),LLL(K,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEE = table(DATES,WORSTA);

WINNERS(1,:) = [];
LOSERS(1,:) = [];
DATES = WINNERS.MONTH

WW1 = table2array(WINF(1,1));
WW2 = table2array(WINF(1,2));
WW3 = table2array(WINF(1,3));

WWW = table2array(LOSERS);
WA = table(WWW(1,WW1),WWW(1,WW2), WWW(1,WW3));

for K = 2:492
    WW1 = table2array(WINF(K,1));
    WW2 = table2array(WINF(K,2));
    WW3 = table2array(WINF(K,3));

```

---

---

```

WWW = table2array(LOSERS);
WAA = table(WWW(K,WW1),WWW(K,WW2), WWW(K,WW3));
WA = [WA;WAA];
end

WA = transpose(table2array(WA));
WA(isnan(WA))=0;
BESTA = mean(WA);
BESTA = transpose(BESTA);
WONEF = table(DATES,BESTA);

LL1 = table2array(LOSF(1,1));
LL2 = table2array(LOSF(1,2));
LL3 = table2array(LOSF(1,3));

LLL = table2array(WINNERS);
LA = table(LL1,LLL(1,LL2));

for K = 2:492
    LL1 = table2array(LOSF(K,1));
    LL2 = table2array(LOSF(K,2));
    LL3 = table2array(LOSF(K,3));

    LLL = table2array(WINNERS);
    LAA = table(LL1,K,LL2));
    LA = [LA;LAA];
end

LA = transpose(table2array(LA));
LA(isnan(LA))=0;
WORSTA = mean(LA);
WORSTA = transpose(WORSTA);
LONEF = table(DATES,WORSTA);

```

## WINWIN LOSLOS

```

WONEA = table2timetable(WONEA);
WONEB = table2timetable(WONEB);
WONEC = table2timetable(WONEC);
WONED = table2timetable(WONED);
WONEE = table2timetable(WONEE);
WONEF = table2timetable(WONEF);
LONEA = table2timetable(LONEA);
LONEB = table2timetable(LONEB);
LONEC = table2timetable(LONEC);
LONED = table2timetable(LONED);
LONEE = table2timetable(LONEE);
LONEF = table2timetable(LONEF);

WINWIN = [WONEA;WONEB;WONEC;WONED;WONEE;WONEF];
WINWIN = retime(WINWIN,'monthly','mean');

LOSLOS = [LONEA;LONEB;LONEC;LONED;LONEE;LONEF];

```

---

---

```

LOSLOS = retime(LOSLOS,'monthly','mean');

LOSWINWINLOS = timetable(WINWIN.DATES,WINWIN.BESTA,LOSLOS.WORSTA,
(WINWIN.BESTA-LOSLOS.WORSTA));
LOSWINWINLOS.Properties.VariableNames = {'P1' 'P10' 'TRADINGRET'};

```

## Descriptive statistics

```

MON = timetable2table(LOSWINWINLOS);
RF = BENCH.RF/100;
MON.P1 = MON.P1-RF;
MON.P10 = MON.P10-RF;
MON.TRADINGRET = MON.P1-MON.P10;

MON(:,1) = [];
MKT = BENCH.MktRF/100;
MKT = table(MKT);
MON = [MON MKT];
MONN = table2array(MON);
STATS = mean(MONN);
STATS = [STATS;std(MONN)];

P1 = fitlm(BENCH.MktRF/100,MON.P1);
P10 = fitlm(BENCH.MktRF/100,MON.P10);
PT = fitlm(BENCH.MktRF/100,MON.TRADINGRET);
PM = fitlm(BENCH.MktRF/100,BENCH.MktRF/100);

P1A = P1.Coefficients.Estimate;
P1A(2,:) = [];
P10A = P10.Coefficients.Estimate;
P10A(2,:) = [];
PTA = PT.Coefficients.Estimate;
PTA(2,:) = [];
PMA = PM.Coefficients.Estimate;
PMA(2,:) = [];

ALPHA = [P1A P10A PTA PMA];
STATS = [STATS;ALPHA];

P1AT = P1.Coefficients.tStat;
P1AT(2,:) = [];
P10AT = P10.Coefficients.tStat;
P10AT(2,:) = [];
PTAT = PT.Coefficients.tStat;
PTAT(2,:) = [];
PMAT = PM.Coefficients.tStat;
PMAT(2,:) = [];

ALPHATSTAT = [P1AT P10AT PTAT PMAT];
STATS = [STATS;ALPHATSTAT];

P1B = P1.Coefficients.Estimate;
P1B(1,:) = [];

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P10B = P10.Coefficients.Estimate;
P10B(1,:) = [];
PTB = PT.Coefficients.Estimate;
PTB(1,:) = [];
PMB = PM.Coefficients.Estimate;
PMB(1,:) = [];

BETA = [P1B P10B PTB PMB];
STATS = [STATS;BETA];

P1BT = P1.Coefficients.tStat;
P1BT(1,:) = [];
P10BT = P10.Coefficients.tStat;
P10BT(1,:) = [];
PTBT = PT.Coefficients.tStat;
PTBT(1,:) = [];
PMBT = PM.Coefficients.tStat;
PMBT(1,:) = [];

BETATSTAT = [P1BT P10BT PTBT PMBT];
STATS = [STATS;BETATSTAT];

MEAN = array2table((mean(MONN)));
STD = array2table((std(MONN)));
SHARPE = [MEAN.Var1/STD.Var1 MEAN.Var2/STD.Var2 MEAN.Var3/STD.Var3
          MEAN.Var4/STD.Var4];
STATS = [STATS;SHARPE];

MEAN = array2table((mean(MONN)));
BETA = array2table(BETA);
TREYNOR = [MEAN.Var1/BETA.BETA1 MEAN.Var2/BETA.BETA2 MEAN.Var3/
           BETA.BETA3 MEAN.Var4/BETA.BETA4];
STATS = [STATS;TREYNOR];

MMMM = ret2price(MONN);
[MaxDD, MaxDDIndex] = maxdrawdown(MMMM);
STATS = [STATS;MaxDD];

DDM = [11 23 6 18];
STATS = [STATS;DDM];

SKEW = skewness(MONN);
STATS = [STATS;SKEW];

KURT = kurtosis(MONN);
STATS = [STATS;KURT];

[h,p,jbstat,critval] = jbtest(LOSWINWINLOS.P1,[],0.0001);
JBSTAT1 = jbstat;
JBP1 = p;
[h,p,jbstat,critval] = jbtest(LOSWINWINLOS.P10,[],0.0001);
JBSTAT10 = jbstat;
JBP10 = p;
[h,p,jbstat,critval] = jbtest(LOSWINWINLOS.TRADINGRET,[],0.0001);

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```

JBSTATT = jbstat;
JBPT = p;
[h,p,jbstat,critval] = jbtest(MKT.MKT,[],0.0001);
JBSTATM = jbstat;
JBPM = p;

JBSTAT = [JBSTAT1 JBSTAT10 JBSTATT JBSTATM];
JBP = [JBP1 JBP10 JBPT JBPM];

STATS = [STATS;JBSTAT;JBP];

STATS = array2table(STATS);
STATS.Properties.VariableNames = {'P1' 'P10' 'TRADINGRET' 'MARKET'};

STATS.Properties.RowNames =
{'RETURN';'STDD';'ALPHA';'ATSTAT';'BETA';'BTSTAT';'SHARPE';'TREYNOR';'MDD';'MDDMO'

```

## Descriptive statistics

```

BASIC = table(LOSWINLOSLOS.Time,LOSWINLOSLOS.TRADINGRET,
(BENCH.MktRF/100));
BASIC = table2timetable(BASIC);

infmt = 'dd-MM-YYYY';
starttime = datetime('1-12-1980', 'InputFormat', infmt);
endtime = datetime('2-6-1982', 'InputFormat', infmt);
T1 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-YYYY';
starttime = datetime('1-7-1982', 'InputFormat', infmt);
endtime = datetime('2-3-1983', 'InputFormat', infmt);
T2 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-YYYY';
starttime = datetime('1-4-1983', 'InputFormat', infmt);
endtime = datetime('2-8-1987', 'InputFormat', infmt);
T3 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-YYYY';
starttime = datetime('1-09-1987', 'InputFormat', infmt);
endtime = datetime('2-11-1987', 'InputFormat', infmt);
T4 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-YYYY';
starttime = datetime('1-12-1987', 'InputFormat', infmt);
endtime = datetime('2-8-1989', 'InputFormat', infmt);
T5 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-YYYY';
starttime = datetime('1-09-1989', 'InputFormat', infmt);
endtime = datetime('2-10-1990', 'InputFormat', infmt);
T6 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-YYYY';

```

---

```

starttime = datetime('1-11-1990', 'InputFormat', infmt);
endtime = datetime('2-5-1991', 'InputFormat', infmt);
T7 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-yyyy';
starttime = datetime('1-06-1991', 'InputFormat', infmt);
endtime = datetime('2-03-2000', 'InputFormat', infmt);
T8 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-yyyy';
starttime = datetime('1-4-2000', 'InputFormat', infmt);
endtime = datetime('2-9-2002', 'InputFormat', infmt);
T9 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-yyyy';
starttime = datetime('1-10-2002', 'InputFormat', infmt);
endtime = datetime('2-5-2007', 'InputFormat', infmt);
T10 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-yyyy';
starttime = datetime('1-6-2007', 'InputFormat', infmt);
endtime = datetime('2-2-2009', 'InputFormat', infmt);
T11 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-yyyy';
starttime = datetime('1-3-2009', 'InputFormat', infmt);
endtime = datetime('2-12-2012', 'InputFormat', infmt);
T12 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-yyyy';
starttime = datetime('1-1-2013', 'InputFormat', infmt);
endtime = datetime('2-12-2019', 'InputFormat', infmt);
T13 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-yyyy';
starttime = datetime('1-1-2020', 'InputFormat', infmt);
endtime = datetime('2-3-2020', 'InputFormat', infmt);
T14 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-yyyy';
starttime = datetime('1-4-2020', 'InputFormat', infmt);
endtime = datetime('2-6-2020', 'InputFormat', infmt);
T15 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

infmt = 'dd-MM-yyyy';
starttime = datetime('1-7-2020', 'InputFormat', infmt);
endtime = datetime('2-12-2021', 'InputFormat', infmt);
T16 = BASIC(isbetween(BASIC.Var1, starttime, endtime), :);

T1 = [T1;T4;T6;T9;T11];

T2 = [T2;T5;T7;T10;T12];

T3 = [T3;T8;T13];

```

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---

```

P1 = timetable2table(T1)
P1(:,1) = [];
P2 = timetable2table(T2)
P2(:,1) = [];
P3 = timetable2table(T3)
P3(:,1) = [];
P13 = timetable2table(T13)
P13(:,1) = [];
P14 = timetable2table(T14)
P14(:,1) = [];
P15 = timetable2table(T15)
P15(:,1) = [];
P16 = timetable2table(T16)
P16(:,1) = [];

STATS = [mean(P1.Var2) mean(P1.Var3) mean(P2.Var2) mean(P2.Var3)
         mean(P3.Var2) mean(P3.Var3) mean(P14.Var2) mean(P14.Var3)
         mean(P15.Var2) mean(P15.Var3) mean(P16.Var2) mean(P16.Var3);
         std(P1.Var2) std(P1.Var3) std(P2.Var2) std(P2.Var3) std(P3.Var2)
         std(P3.Var3) std(P14.Var2) std(P14.Var3) std(P15.Var2) std(P15.Var3)
         std(P16.Var2) std(P16.Var3)];
```

```

R1 = fitlm(T1.Var3,T1.Var2);
R2 = fitlm(T1.Var3,T1.Var3);
R3 = fitlm(T2.Var3,T2.Var2);
R4 = fitlm(T2.Var3,T2.Var3);
R5 = fitlm(T3.Var3,T3.Var2);
R6 = fitlm(T3.Var3,T3.Var3);
R27 = fitlm(T14.Var3,T14.Var2);
R28 = fitlm(T14.Var3,T14.Var3);
R29 = fitlm(T15.Var3,T15.Var2);
R30 = fitlm(T15.Var3,T15.Var3);
R31 = fitlm(T16.Var3,T16.Var2);
R32 = fitlm(T16.Var3,T16.Var3);

R1A = R1.Coefficients.Estimate;
R1A(2,:) = [];
R2A = R2.Coefficients.Estimate;
R2A(2,:) = [];
R3A = R3.Coefficients.Estimate;
R3A(2,:) = [];
R4A = R4.Coefficients.Estimate;
R4A(2,:) = [];
R5A = R5.Coefficients.Estimate;
R5A(2,:) = [];
R6A = R6.Coefficients.Estimate;
R6A(2,:) = [];
R27A = R27.Coefficients.Estimate;
R27A(2,:) = [];
R28A = R28.Coefficients.Estimate;
R28A(2,:) = [];
R29A = R29.Coefficients.Estimate;
```

---

```
R29A(2,:) = [];
R30A = R30.Coefficients.Estimate;
R30A(2,:) = [];
R31A = R31.Coefficients.Estimate;
R31A(2,:) = [];
R32A = R32.Coefficients.Estimate;
R32A(2,:) = [];

ALPHA = [R1A R2A R3A R4A R5A R6A R27A R28A R29A R30A R31A R32A];
STATS = [STATS;ALPHA];

R1A = R1.Coefficients.tStat;
R1A(2,:) = [];
R2A = R2.Coefficients.tStat;
R2A(2,:) = [];
R3A = R3.Coefficients.tStat;
R3A(2,:) = [];
R4A = R4.Coefficients.tStat;
R4A(2,:) = [];
R5A = R5.Coefficients.tStat;
R5A(2,:) = [];
R6A = R6.Coefficients.tStat;
R6A(2,:) = [];
R27A = R27.Coefficients.tStat;
R27A(2,:) = [];
R28A = R28.Coefficients.tStat;
R28A(2,:) = [];
R29A = R29.Coefficients.tStat;
R29A(2,:) = [];
R30A = R30.Coefficients.tStat;
R30A(2,:) = [];
R31A = R31.Coefficients.tStat;
R31A(2,:) = [];
R32A = R32.Coefficients.tStat;
R32A(2,:) = [];

ALPHAT = [R1A R2A R3A R4A R5A R6A R27A R28A R29A R30A R31A R32A];
STATS = [STATS;ALPHAT];

R1A = R1.Coefficients.Estimate;
R1A(1,:) = [];
R2A = R2.Coefficients.Estimate;
R2A(1,:) = [];
R3A = R3.Coefficients.Estimate;
R3A(1,:) = [];
R4A = R4.Coefficients.Estimate;
R4A(1,:) = [];
R5A = R5.Coefficients.Estimate;
R5A(1,:) = [];
R6A = R6.Coefficients.Estimate;
R6A(1,:) = [];
R28A = R28.Coefficients.Estimate;
R28A(1,:) = [];
R29A = R29.Coefficients.Estimate;
```

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```

R29A(1,:) = [];
R30A = R30.Coefficients.Estimate;
R30A(1,:) = [];
R31A = R31.Coefficients.Estimate;
R31A(1,:) = [];
R32A = R32.Coefficients.Estimate;
R32A(1,:) = [];

BETA = [R1A R2A R3A R4A R5A R6A R27A R28A R29A R30A R31A R32A];
STATS = [STATS;BETA];

R1A = R1.Coefficients.tStat;
R1A(1,:) = [];
R2A = R2.Coefficients.tStat;
R2A(1,:) = [];
R3A = R3.Coefficients.tStat;
R3A(1,:) = [];
R4A = R4.Coefficients.tStat;
R4A(1,:) = [];
R5A = R5.Coefficients.tStat;
R5A(1,:) = [];
R6A = R6.Coefficients.tStat;
R6A(1,:) = [];
R28A = R28.Coefficients.tStat;
R28A(1,:) = [];
R29A = R29.Coefficients.tStat;
R29A(1,:) = [];
R30A = R30.Coefficients.tStat;
R30A(1,:) = [];
R31A = R31.Coefficients.tStat;
R31A(1,:) = [];
R32A = R32.Coefficients.tStat;
R32A(1,:) = [];

BETAT = [R1A R2A R3A R4A R5A R6A R27A R28A R29A R30A R31A R32A];
STATS = [STATS;BETAT];

SHARPE = [(mean(P1.Var2)/std(P1.Var2)) (mean(P1.Var3)/std(P1.Var3))
           (mean(P2.Var2)/std(P2.Var2)) (mean(P2.Var3)/std(P2.Var3))
           (mean(P3.Var2)/std(P3.Var2)) (mean(P3.Var3)/std(P3.Var3))
           (mean(P14.Var2)/std(P14.Var2)) (mean(P14.Var3)/std(P14.Var3))
           (mean(P15.Var2)/std(P15.Var2)) (mean(P15.Var3)/std(P15.Var3))
           (mean(P16.Var2)/std(P16.Var2)) (mean(P16.Var3)/std(P16.Var3))];
STATS = [STATS;SHARPE];

BETA = array2table(BETA);
TREYNOR = [(mean(P1.Var2)/BETA.BETA1) (mean(P1.Var3)/BETA.BETA2)
            (mean(P2.Var2)/BETA.BETA3) (mean(P2.Var3)/BETA.BETA4) (mean(P3.Var2)/
            BETA.BETA5) (mean(P3.Var3)/BETA.BETA6) (mean(P14.Var2)/BETA.BETA7)
            (mean(P14.Var3)/BETA.BETA8) (mean(P15.Var2)/BETA.BETA9)
            (mean(P15.Var3)/BETA.BETA10) (mean(P16.Var2)/BETA.BETA11)
            (mean(P16.Var3)/BETA.BETA12)];
STATS = [STATS;TREYNOR];

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```
SKEW = [skewness(P1.Var2) skewness(P1.Var3) skewness(P2.Var2)
skewness(P2.Var3) skewness(P3.Var2) skewness(P3.Var3)
skewness(P14.Var2) skewness(P14.Var3) skewness(P15.Var2)
skewness(P15.Var3) skewness(P16.Var2) skewness(P16.Var3)];
STATS = [STATS;SKEW];

KURT = [kurtosis(P1.Var2) kurtosis(P1.Var3) kurtosis(P2.Var2)
kurtosis(P2.Var3) kurtosis(P3.Var2) kurtosis(P3.Var3)
kurtosis(P14.Var2) kurtosis(P14.Var3) kurtosis(P15.Var2)
kurtosis(P15.Var3) kurtosis(P16.Var2) kurtosis(P16.Var3)];
STATS = [STATS;KURT];

STATS = array2table(STATS);
STATS.Properties.VariableNames =
{'ZC1' 'MKT1' 'ZC2' 'MKT2' 'ZC3' 'MKT3' 'ZC14' 'MKT14' 'ZC15' 'MKT15' 'ZC16' 'MKT16'
STATS.Properties.RowNames =
{'RETURN' ; 'STDD' ; 'ALPHA' ; 'ATSTAT' ; 'BETA' ; 'BTSTAT' ; 'SHARPE' ; 'TREYNOR' ; 'SKEW' ; 'KURT'}
```

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