

## All features

### Set route to the directory

```
m_file_path = pwd;
m_files = dir(m_file_path);
filename = struct2cell(m_files);
freq = [1,5,10,20,50,100];
fid = fopen('kick_back.txt');
A = textscan(fid,'%s','delimiter',' ');
key_ = cellstr(A{1,1});
p = 1;
for i = 1:length(filename(1,:))
    name = filename(1,i);
    if isempty(strfind(char(name),'.mat')) == 1
        continue
    else
        disp(char(name))
        name1 = char(name);

        data = load(name1);
        data = data.data1;
        name1 = name1(1:13);
        for j = 1:length(key_)
            if strcmp(key_(j),name1) == 1
                key = str2num(cell2mat(key_(j+1)));
                break;
            end
        end
    end

    T = length(data.Asset_Price);
    num_of_freq = length(freq);
    PnL = zeros(T,num_of_freq);
    cost = zeros(T,num_of_freq);
    C0 = data.Call_Price(key);
    P0 = data.Put_Price(key);

    for n = 1:num_of_freq
        f = freq(n);
        cost(key,n) = data.Asset_Price(key) * data.Delta(key);
        for m = key+1:T
            if mod((m-key),f) == 0
                cost(m,n) = cost((m-f),n) + (data.Delta(m) - data.Delta(m-f))*...
                    data.Asset_Price(m);
                PnL(m,n) = data.Call_Price(m) + data.Put_Price(m) - ...
                    C0 - P0 + cost((m-f),n) - data.Delta(m-f)*data.Asset_Price(m);
            else
                cost(m,n) = cost((m-1),n);
                PnL(m,n) = PnL((m-1),n);
            end
        end
    end

    PnL_straddle = straddle(data,key,freq);
```

```

PnL_hedge = hedge(data,key,freq);

tur_graph = [m_file_path, '\Tur_regime\',name1];

%   figure(p)
%   plot(PnL((key:end),:));
%   legend(num2str(freq'))
%   title([name1,'P&L'])
%   savefig(tur_graph);
%   p = p + 1;
%
%   figure(p)
%   plot(data.Asset_Price);
%   title(name1)
%   p = p + 1;
%
figure(p)
plot(PnL_hedge((key:end),:));
legend(num2str(freq'))
title([name1,'P&LHedge'])
p = p + 1;

%   figure(p)
%   plot(PnL_straddle((key:end),:));
%   legend(num2str(freq'))
%   title([name1,'P&LStraddle'])
%   p = p + 1;
%

end

end

```

```

AAPLX20180205.mat
AAXXX20180221.mat
AGNXX20180221.mat
AXPXX20180205.mat
BAXXX20180205.mat
BHGEX20180221.mat
CMCSX20180205.mat
COFXX20180205.mat
HFCXX20180205.mat
KEMXX20180205.mat

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