```
run('Ass1_Part2_Task1.m');
run('Ass1_Part2_Task2.m');
run('Ass1_Part2_Task3.m');
data1 = load('task1.mat', 'output');
data2 = load('task2.mat', 'output');
data3 = load('task3.mat', 'output');
combined_output = [data1.output, data2.output, data3.output];
% Save the combined output to a new file
save('combined_output.mat', 'output');
printResults(output, 1)
%Answers to task 1
%USD weekly seem to be fitted better to a log normal distribution than USD daily, this
%can be shown by the QQ-plot being closer to a straight line and the
%Histogram is closer to the normal distribution.
%The USD seem overall to be a better fit than EUR, the weekly EUR is better
%than the daily.
%It is reasonable that the weekly fits normal distribution better since on
%a daily basis there's more risk of deviation that can capture different
%relationships.
%Answers to task 2
%i)
%We can observe that the volatility of the timeseries depends on the time,
%when using all different methods of observing it. Therefore the time
%series are heteroskedastic
%ii)
%EWMA has the largest -loglikelihood, GARCH with target variance the next
%largest -loglikelihood and GARCH without target variance is the smallest
%one.
%This is reasonable beacuase GARCH captures heteroskedastic time series
%better than EWMA, because it can capture periods of high repectively low
%volatility better than EWMA. This is beacause omega can capture the long
%term variance, so the model does not only capture the most recent values.
%iii)
%. The GARCH model without variance targeting captures more pronounced peaks and valleys in volatility,
% making it more sensitive to sudden changes in market conditions.
% It reflects extreme changes in volatility more accurately.
%The EWMA model produces smoother volatility estimates,
% with less pronounced spikes.
% It adapts to changing volatility conditions but is generally less responsive to sudden shifts compared to the GARCH model.
%iv)
%Yes, the QQ-plots for this assignment follows a straight line better than
%in 1b).
```

%The scatter-plot is pretty similar, which indicates that the distribution %describes the datas dependence well.



















