FINS5542 Assignment 2

Date Due: 11pm 28 October, with electronic submission via the course website.

1. Critically evaluate, in less than 1200 words, the role of technical analysis in equity markets.
Please include appropriate references, with a reference section. Both content and writing quality are key criteria of equal importance.

[30 marks]

2. In this question we will conduct a backtesting exercise for the 1998 year. For each trading day in 1998 we must graph the 99% VaR that was computed 10 trading days before and we must also graph the realised loss in the portfolio that occurs over this same period.
One is required to produce two graphs. The first graph should be the backtesting of the VaR method under normality. The second graph should be the backtesting of the VaR method under historical simulation of daily changes in prices. Finally, one should interpret the findings from both of these graphical displays, (noting presentation quality is important).
For these exercises, assume that we hold a portfolio of 10 assets, namely, aan3, aan4, aan5, aan6, aan7, aan8, aan16, aan17, aan18 and aan19 where $30,000 dollars was the value of our holdings in each of the stocks ten trading days before the first trading day in 1998. i.e. On 17 December 1997, the value of our portfolio is $300,000. Also assume that the number of shares we hold in each of these stocks does not change over the time frame of our back-testing exercise. Finally, in computing the VaR estimates one should use the last 750 changes in prices. The data is located on the fins5542 Moodle page. See last page, for variable names.
In addition to printing out the Excel graphs, one should also print out the Ox computer code.

[20 marks]

3. In this question we will conduct a backtesting exercise for a portfolio of 6 stocks for the 2020 year. For each trading day in 2020 we must graph the 99% VaR that was computed 10 trading days before and we must also graph the realised loss in the portfolio that occurs over this same period.

One is required to produce two graphs. The first graph should be the backtesting of the VaR method under normality. The second graph should be the backtesting of the VaR method under historical simulation of daily changes in prices. Finally, one should interpret the findings from both of these graphical displays, (noting presentation quality is important).

For these exercises, assume that $500,000 dollars was the value of our holdings in each of Apple Inc, Cisco Systems Inc, Chevron Corp, Intel Corp, Coco-Cola Co and Walt Disney Co ten trading days before the first trading day in 2020. Also assume that the number of shares we hold in each of these stocks does not change over the time frame of our back-testing exercise. Finally, in computing the VaR estimates one should use the last 800 changes in prices.

In addition to printing out the Excel graphs, one should also print out the Ox computer code.

[30 marks]

Variable	Name
aan1	CISCO SYSTEMS INC
aan2	MICROSOFT CORP
aan3	INTEL CORP
aan4	TEXAS INSTRUMENTS INC
aan5	SPRINT CORP
aan6	AMGEN INC
aan7	INTERPUBLIC GROUP COS INC
aan8	MELLON BANK CORP
aan9	WARNER LAMBERT CO
aan10	BRISTOL MYERS SQUIBB CO
aan11	ENRON CORP
aan12	GENERAL ELECTRIC CO
aan13	TIME WARNER INC
aan14	EXXON CORP
aan15	DELL COMPUTER CORP
aan16	AMERICAN EXPRESS CO
aan17	SUN MICROSYSTEMS INC
aan18	CORNING INC
aan19	FORD MOTOR CO DEL