5.1   Introduction

In this section we will look at issues relating to designing effective graphs and other visual aids.

5.2   Guidelines for visual aids
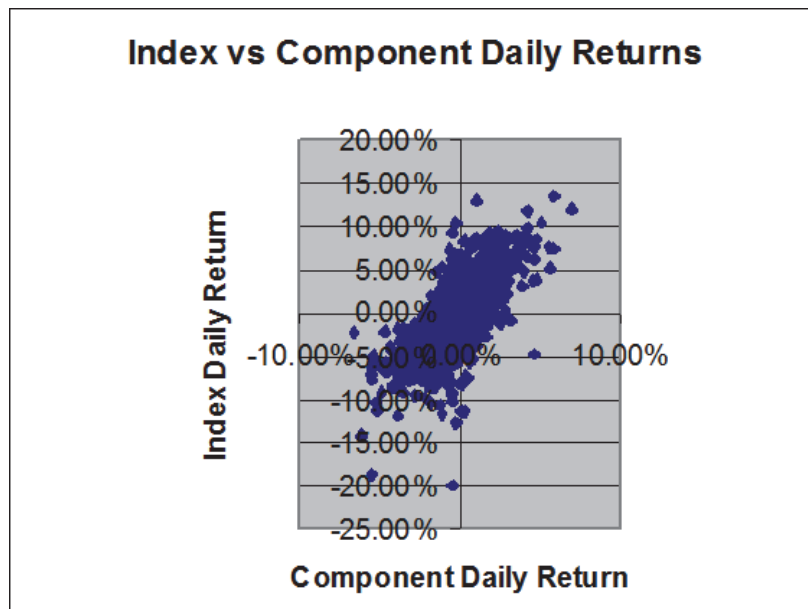
A good visual aid should:

- present the key information clearly
- use an appropriate presentational device
- emphasise the important features
- be clearly labelled
- show the units of measurement used
- use appropriate scales (not too spread out or too cramped)
- not contain irrelevant distractions.

5.3   Examples of good and bad graphs

Example 5.1

Have a look at the graph below. Identify six ways in which it could be improved.

Solution

The graph is not at all clear. It is far too cluttered.

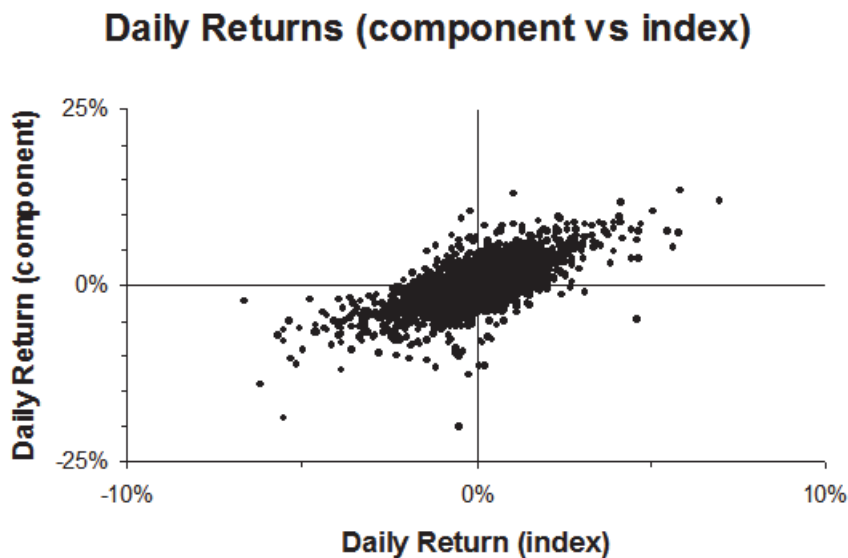The graph area (*ie* the grey part) is too small. It needs to be stretched horizontally.

The percentage labels should be reduced in size so that they don't dominate the graph and so that you can see exactly where 10% is on the horizontal axis.

The percentage labels should be shown with fewer decimal places (*eg* 10% instead of 10.00%).

The vertical axis should be repositioned so that the data points don't overwrite the values on the axis.

A smaller marker should be used for the individual points so that they don't blur together. A different shape (*eg* a dot instead of a diamond) might be better.   ♦ ♦

Here is a correct version. It wasn't obvious from the graph but the student had in fact labelled the axes on this graph the wrong way round too.

Daily Returns (component vs index)

♦ ♦

5.4   Common methods of graphical presentation

Graphs are called *charts* in Excel. If you are working in Excel and select the **Insert** menu tab, you will see most of the commonly used methods of graphical presentation. The ones that are likely to be the most useful in the Module 5 exam are described below. For information on how to create charts in Excel, see Chapter 6.

◆ Pie charts

Although pie charts are commonly used in newspaper articles, television reports and on the internet, they are only effective when used to present small amounts of very basic data. So these would not usually be the best chart type to use in the Module 5 exam.