

CHAPTER 3

InFocus

CHART OBJECT FORMATTING

While charts are created with a default appearance, you can change the formatting of each object that comprises the chart to create a fully customised version.

In this session you will:

- ✓ gain an understanding of chart objects and how they can be formatted
- ✓ learn how to select chart elements
- ✓ learn how to use shape styles to format objects
- ✓ learn how to change column colour
- ✓ learn how to change the colour of a pie slice
- ✓ learn how to change bar colours
- ✓ learn how to change chart line colours
- ✓ learn how to use shape effects
- ✓ learn how to fill the chart area and the plot area
- ✓ learn how to fill the background
- ✓ gain an understanding of the **Format** dialog box
- ✓ learn how to use the **Format** dialog box
- ✓ learn how to apply a theme to a chart.

UNDERSTANDING CHART OBJECT FORMATTING

Charts are complex drawings that are made up of a wide range of text and graphical elements. Each **object can be formatted** individually to create fully customised charts. The objects in a

chart vary a little depending on the chart type, but in general the objects are fairly standard. This page examines a range of chart objects and the formatting that can be used to modify them.

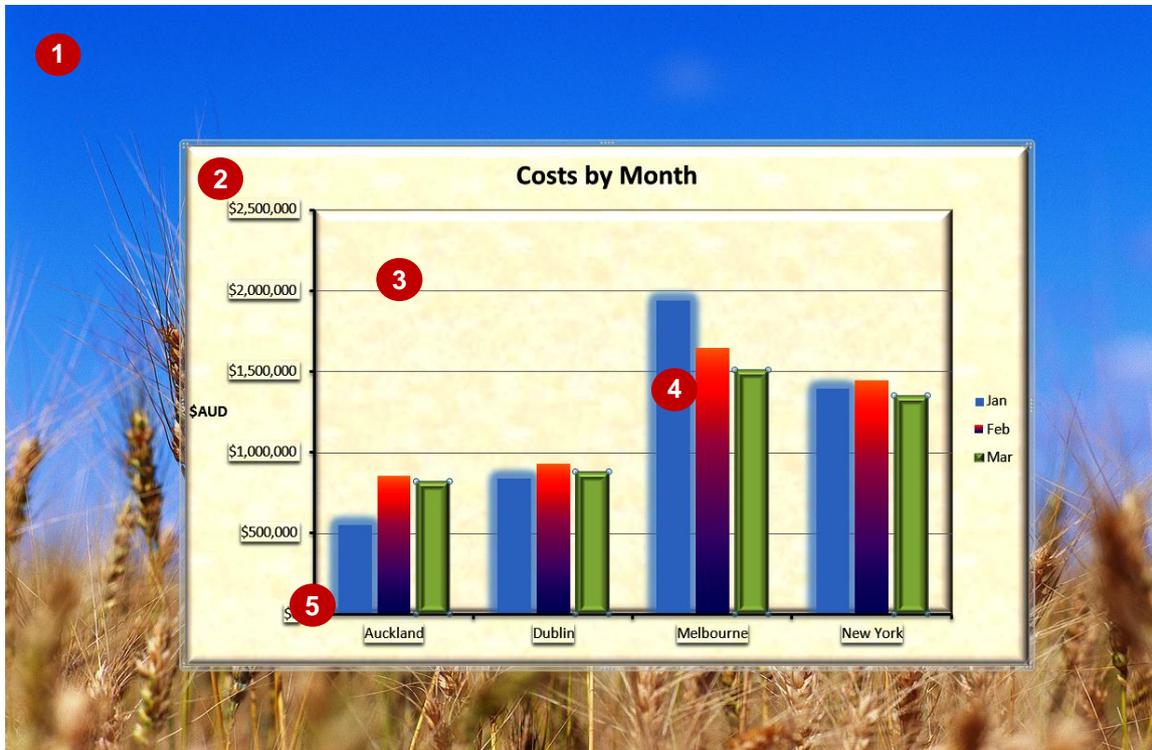


Chart Objects

Chart objects include lines, shapes and the background of the slide. The following examples apply to the column chart shown above.

- 1 The **chart background** is the area behind the chart and it is usually hidden. You can insert a picture in the background to make the chart more visually appealing.
- 2 The **chart area** is the overall area occupied by the chart.
- 3 The **plot area** is the area in which the figures are plotted.
- 4 **Series** are the groups of figures plotted on the chart. In this example there are three series: *Jan*, *Feb* and *Mar*.
- 5 The vertical and horizontal axes mark the edges of the chart and display the categories and scale.

Object Formatting Options

- **Shape Fill** settings, such as solid colour, gradient, picture and texture, change the inside of a shape.
- **Shape Outline** settings control the colour, weight and pattern of lines or the outlines of shapes.
- **Shape Effects** modify the entire shape by adding different surface textures, shadows, glow effects, soft edges, bevel effects or 3-D effects. Examples of different effects are shown on the series, plot area and chart area above.
- **Shape Styles** modify shapes with various combinations of shape fill, outline and effect.

SELECTING CHART ELEMENTS

Before you can apply formatting to an element in a chart, you need to be able to select it accurately so that you don't accidentally format the wrong thing. Once you're comfortable

working with charts, you'll learn where to click to select specific objects, but if you're not sure, Excel provides a special control which helps you do just that. It's called **Chart Elements**.

Try This Yourself:

Open File Before starting this exercise you **MUST** open the file *E833 Chart Formatting_1.xlsx...*

1 Click on the chart to display the **Chart Tools** tab, then click on the **Format** tab

2 Click on the **Title** to select it

Pale blue handles will appear around the title showing that it is selected. Now you can format or move the title ...

3 Click on a number in the vertical axis to select it

You can also select elements from a list...

4 Look at the **Chart Elements** control in the **Current Selection** group

This indicates that the Vertical (Value) Axis is selected...

5 Click on the drop arrow for **Chart Elements** to display the list

6 Select **Series "Dublin"** to select the red line in the chart

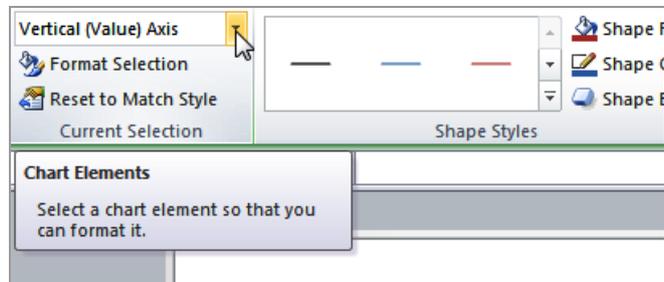
Pale blue handles will appear around each data point...

7 Click outside the chart to deselect the series

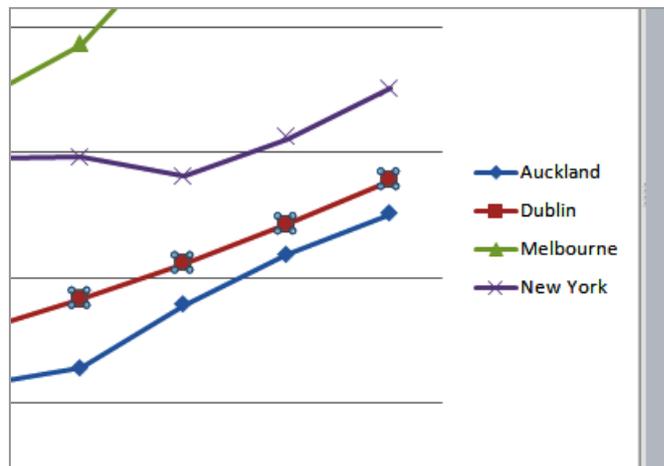
2



4



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For Your Reference...

To **select chart elements**:

1. Click on the element

OR

1. Click on the drop arrow for **Chart Elements** and click on the element name

Handy to Know...

- The only part of the chart that can't be selected using **Chart Elements** is the background.

USING SHAPE STYLES TO FORMAT OBJECTS

Shape Styles take the guesswork out of formatting chart objects by allowing you to apply a shape fill, outline and effects in one step. They are especially effective for series objects such as

columns, lines, bars and pie slices. There's a range of styles to choose from plus a selection of complementary colours.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_2.xlsx...*

1 Click on the **Costs By Month** chart sheet tab

This is a basic column chart...

2 Click on the first **blue** column for **Auckland**, to select it

The entire Jan series will be selected...

3 Click on the **Chart Tools: Format** tab in the **Ribbon**, then click on the **More** button  for **Shape Styles** to see the options

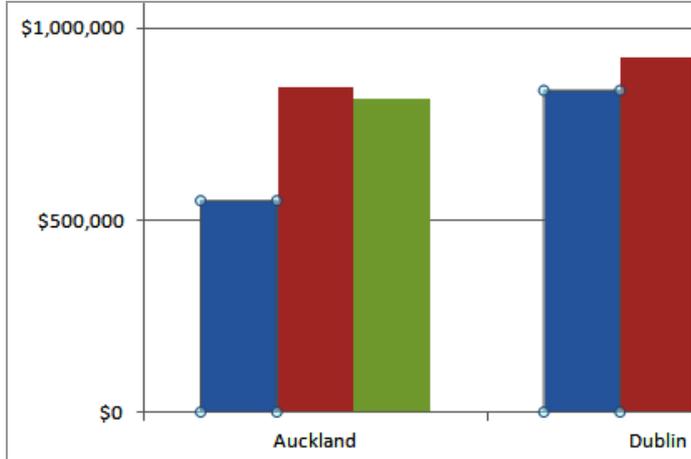
The tool tip displays the name of each style as you point to it...

4 Click on **Intense Effect – Accent 1** (2nd column, bottom row) to apply it

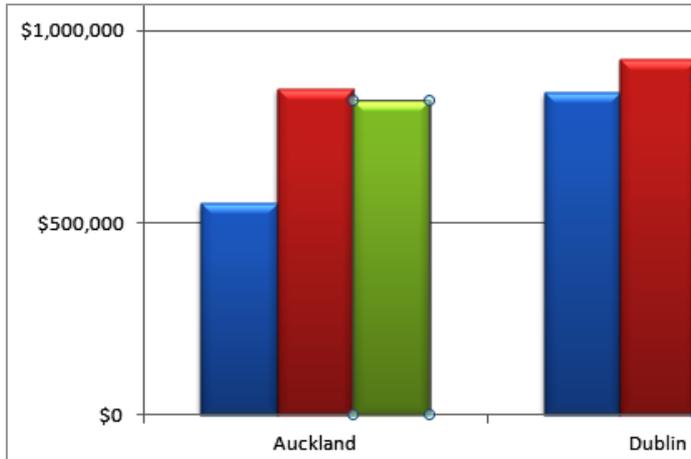
The series is reformatted...

5 Repeat steps **2** to **4** to apply the corresponding **Intense** effects to the **Feb** (red) and **Mar** (green) series

2



5



For Your Reference...

To **use** a **shape style** to **format** a **chart object**:

1. Select the chart object
2. Click on the **More** button  for **Shape Styles** and select the style

Handy to Know...

- You can remove a **Shape Style** by clicking on the object and clicking on **Reset to Match Style**  in the **Current Selection** group of the **Chart Tools: Format** tab.

CHANGING COLUMN COLOUR

If you need to select **alternative colours for a column** in a chart, you can select from a wide range of pre-set colours from the current theme, from a selection of standard colours or even

specify a custom colour. This allows you to format charts to match corporate style guides or other colour schemes. Each column in the selected series will change colour.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_3.xlsx...*

1 If the green series for **Mar** isn't already selected, click on the green column for **Auckland**

2 Click on the **Chart Tools: Format** tab then click on the drop arrow for **Shape Fill** to display the options

There is a selection of colours based on the theme as well as standard colours and effects...

3 Click on **Orange, Accent 6** (1st row, far right column) to apply the colour to the series

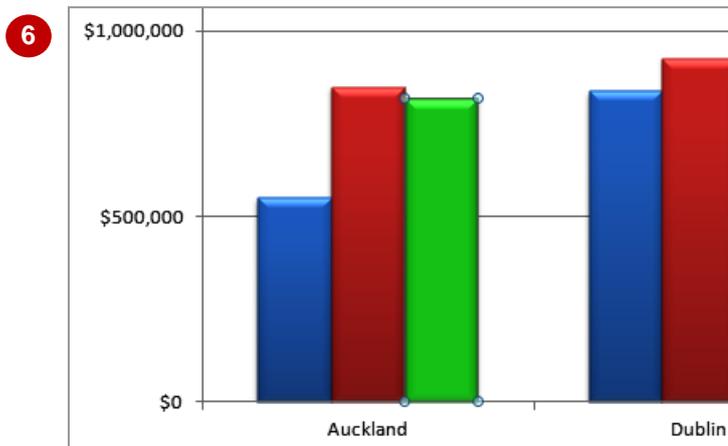
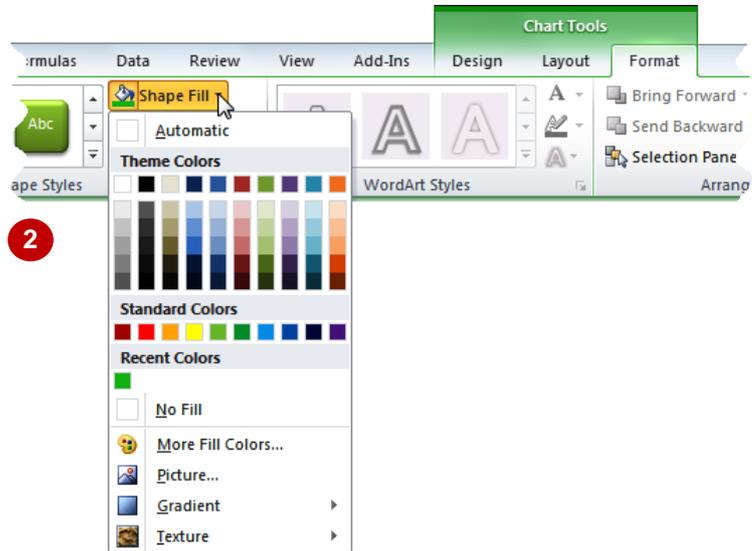
This is one way to change colour...

4 Click on the drop arrow for **Shape Fill** then select **More Fill Colours** to display the **Colours** dialog box

You can specify any colour you like...

5 Click on the **Standard** tab then click on **green** in the middle row (3rd from left)

6 Click on **[OK]** to apply the intense green colour



For Your Reference...

To **change column colour**:

1. Click on the column in the series to select it
2. Click on the drop arrow for **Shape Fill**
3. Click on the colour of your choice

Handy to Know...

- You can also select an alternative colour using **Shape Styles** or apply one of the picture, gradient or texture effects in **Shape Fill**.
- If you click on **Shape Fill** itself rather than the drop arrow, it will apply the colour shown on the tool (i.e. the last applied).

CHANGING PIE SLICE COLOUR

Pie charts are formatted so that each slice of the pie is a different colour. This is because a pie represents a single group of figures rather than multiple series of figures. You may need to

change the colour of a pie slice to improve the contrast between colours if you print in black and white or you may just dislike the standard colours.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_4.xlsx...*

1 Click on the **Sales Pie Chart** chart sheet tab

There are four slices in this pie. We can change the colour of each of them, or change a single slice...

2 Click on the **pie** to select it

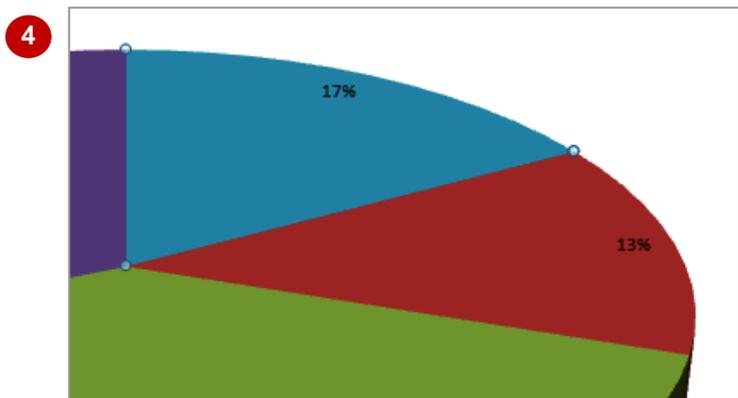
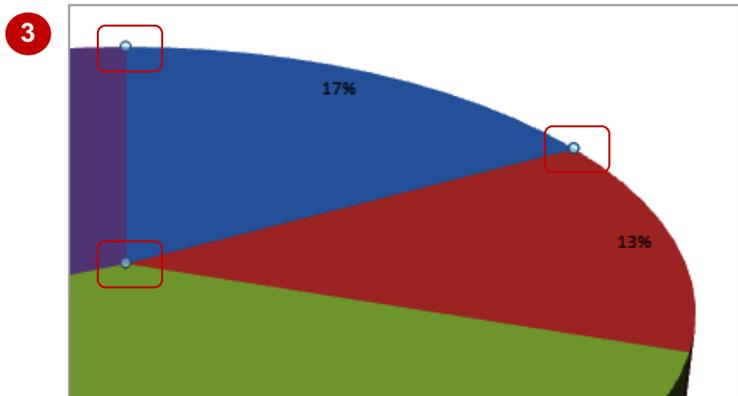
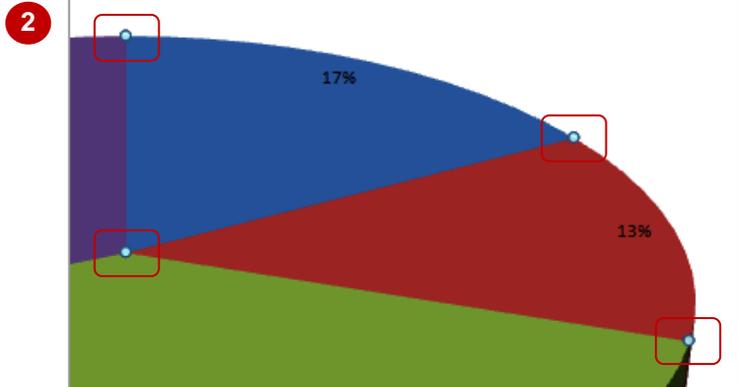
You'll notice pale blue handles at the corner of each slice...

3 Click on the **blue slice**

This time, only the blue slice is selected and the handles are slightly darker in appearance...

4 On the **Chart Tools: Format** tab of the **Ribbon**, click on the drop arrow for **Shape Fill**  and click on **Aqua, Accent 5** (top row, second from the end)

The slice will change colour without affecting the rest of the pie



For Your Reference...

To **change** the **colour** of a **pie slice**:

1. Click on the pie chart to select it
2. Click on the individual slice
3. Click on the drop arrow for **Shape Fill** 
4. Click on the required colour

Handy to Know...

- You can use **Shape Fill**  to apply a range of fancy formatting options to pie slices such as textures and gradients. You can even insert pictures to create some pretty weird effects.

CHANGING BAR COLOURS

Changing the colour of a series of bars is the same as changing the colour of a series of columns. You select the series then apply a different colour. However, how do you **change**

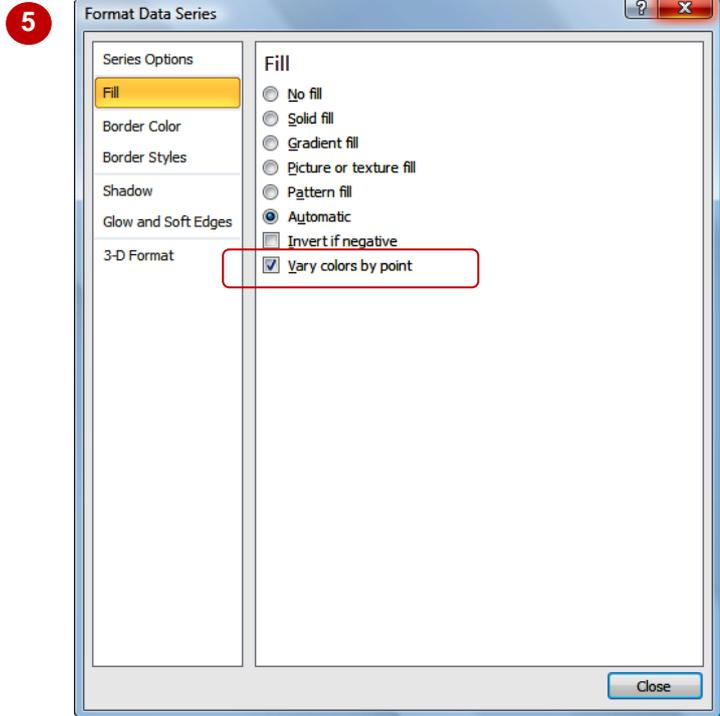
the colour of a single bar or column in a chart when there is only one series? The first step is to change a setting in the **Format** dialog box to allow each bar to be a different colour.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_5.xlsx...*

- 1 Click on the **Costs Bar Chart** chart sheet tab
This is one series and therefore it has one colour...
- 2 Click on any one of the blue bars to select the series, then click on the **Chart Tools: Format** tab on the **Ribbon**
- 3 Click on the **dialog box launcher** for the **Shape Styles** group, to display the **Format Data Series** dialog box
- 4 Click on the **Fill** category to see the fill options
- 5 Click on **Vary colours by point** until it appears with a tick
A range of colours will be applied to the bars. Now you can colour them individually...
- 6 Click on **[Close]** then click on the first bar so that it's the only one selected
- 7 Click on the drop arrow for **Shape Fill** and select **Orange, Accent 6**



7

For Your Reference...

To **change bar colours**:

1. Click on the bar
2. Click on the drop arrow for **Shape Fill** and select a colour

For Your Reference...

To **vary the colours** of a **single series**:

1. Click on the series
2. Click on the **dialog box launcher** for **Shape Styles**
3. Click on **Fill** then click on **Vary colours by point** and click on **[Close]**

CHANGING CHART LINE COLOURS

Line charts are especially useful for plotting values over time and showing trends. The colour of **lines** in a line chart can be changed using **Shape Outline**  while the colour of **markers**

in a line chart can be changed using **Shape Fill** . This is a bit tricky, but once you've seen how it works, it should make sense.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_6.xlsx...*

- 1 Click on the **Sales Trends** chart sheet tab, then click on the red line for **Dublin**

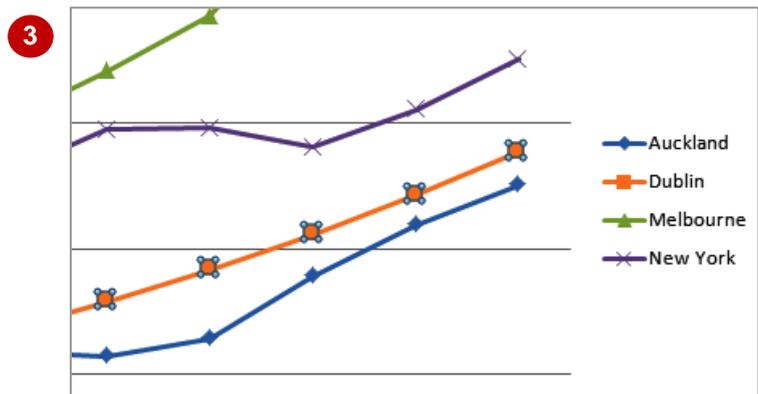
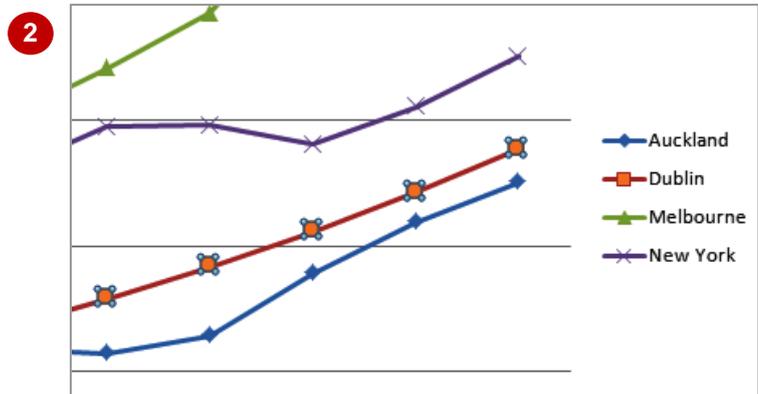
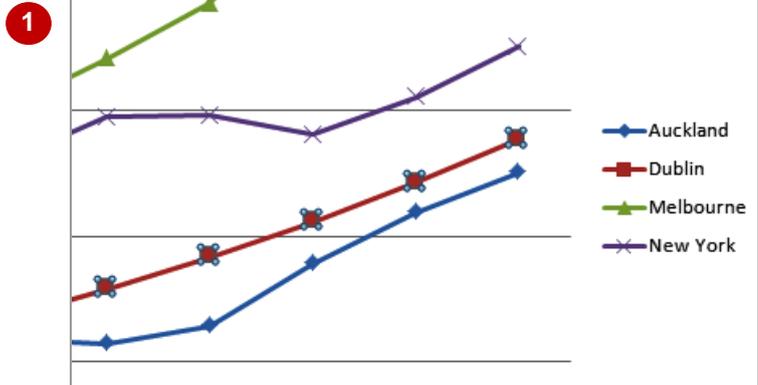
You may find it easier to click on one of the markers. The markers will appear selected and the Chart Elements control will display Series "Dublin"...

- 2 On the **Chart Tools: Format** tab of the **Ribbon**, click on the drop arrow for **Shape Fill**  in the **Shape Styles** group, then click on **Orange, Accent 6**

The markers will change colour but the line will remain red – this is most clearly seen in the legend...

- 3 Click on the drop arrow for **Shape Outline**  and click on **Orange, Accent 6**

This time the line itself will change colour



For Your Reference...

To **change chart line colours**:

1. Click on the line
2. Click on the drop arrow for **Shape Outline**  and select a colour for the **line**
3. Click on the drop arrow for **Shape Fill**  and select a colour for the **markers**

Handy to Know...

- Not every line chart will have markers but it's important to know that you can use **Shape Fill**  to change the colour of this part of the line.

USING SHAPE EFFECTS

Just to make sure that you never run out of options or get bored creating charts, Excel includes a huge range of **shape effects** that you can apply to objects in your chart. Shape effects

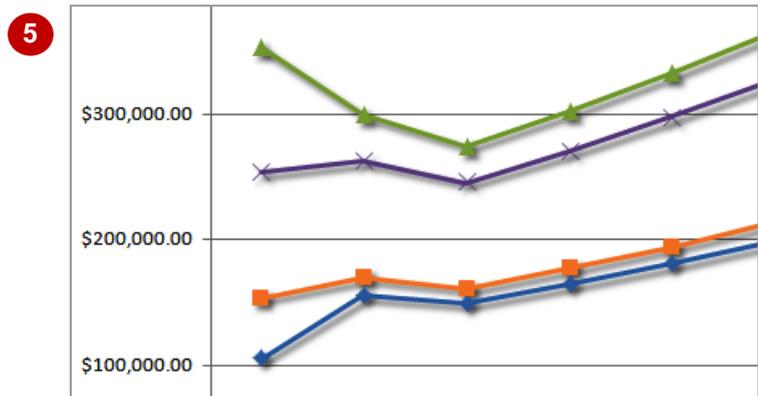
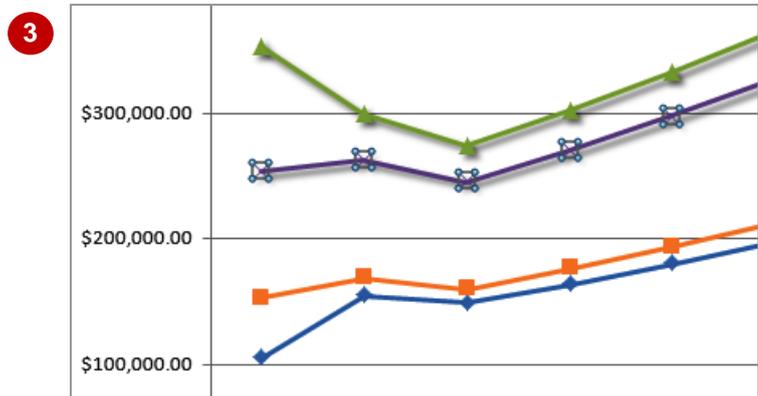
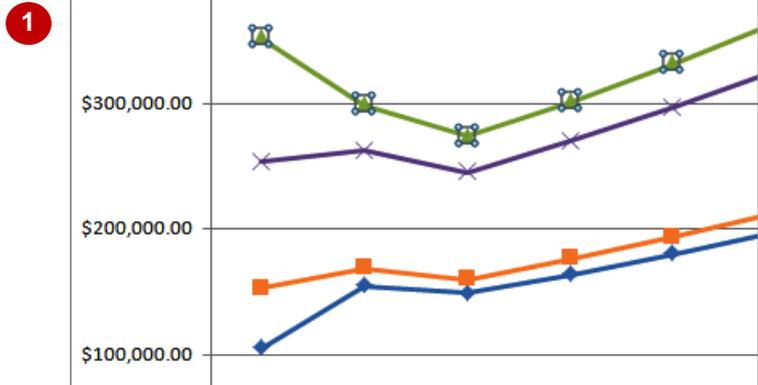
include presets, shadows, reflections, glow, soft edges, bevel and 3-D rotation. You can apply one or more effects although some settings override others. Try a few and have fun!

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_7.xlsx...*

- 1 Click on the green line to select it
- 2 On the **Chart Tools: Format** tab of the **Ribbon**, click on **Shape Effects**  in the **Shape Styles** group, to display the list of options
- 3 Select **Shadow**, then click on the first option on the left under **Outer**
The tool tip will read Offset Diagonal Bottom Right. A shadow will appear below the first line...
- 4 Click on the **purple** line and press **F4**
F4 repeats the previous command and therefore applies the same shadow to this line...
- 5 Repeat step 4 for the **orange** and **blue** lines, then click outside the chart to deselect it



For Your Reference...

To **apply** a **shape effect**:

1. Click on a shape to select it
2. Click on **Shape Effects** 
3. Point to the shape effect you want then select an option

Handy to Know...

- When applying shape effects, the colours available under **Glow** are controlled by the **theme** that is in place. Themes can be viewed, changed and modified on the **Page Layout** tab. Themes also affect the colours listed under **Shape Fill**  and **Shape Outline** .

FILLING THE CHART AREA AND THE PLOT AREA

While you can play with the colours of lines and bars on a chart, sometimes all you need to do to jazz up a chart is to change the background areas. The area behind the lines, columns, bars

and pie slices is known as the **plot area**, while the area outside (and behind) the plot area is known as the **chart area**. These areas can be modified using the **Shape Fill**  options.

Try This Yourself:

Same
File

Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_8.xlsx...*

1

Click on the **Chart Tools: Format** tab of the **Ribbon**, then click on a blank, white area to the side of the chart

You should see the name **Chart Area** displayed in the Tool Tip and in the Chart Elements control...

2

Click on the drop arrow for **Shape Fill** , then point to **Texture** and select **Blue tissue paper** (1st column, 5th row)

The area behind the plot area will be filled...

3

Click in the **plot area** which is the white area behind the lines

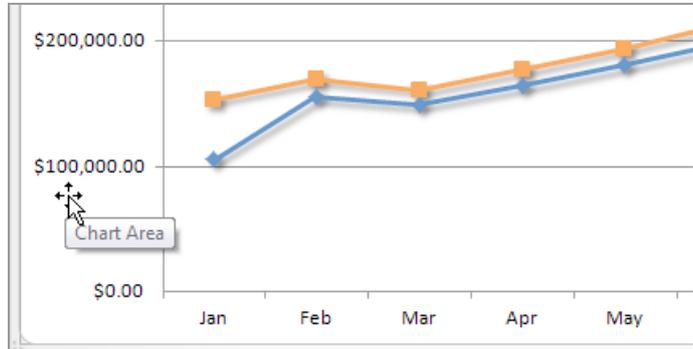
Blue handles should appear at each corner...

4

Click on the drop arrow for **Shape Fill** , and select **Tan, Background 2** under **Theme Colours**

This tones down the white area a little to make it more compatible with the chart area fill

1



2



4



For Your Reference...

To **fill** the **plot area** or **chart area**:

1. Click on the **plot area** or **chart area**
2. Click on the drop arrow for **Shape Fill**  and select an option

Handy to Know...

- If you set the fill for the **plot area** to **No Fill**, the fill for the **chart area** will be visible throughout the chart. This is the default setting for pie charts.
- When you apply a fill to the plot area, be careful not to compromise the readability of the chart.

FILLING THE BACKGROUND

One area of the chart sheet that is not immediately visible is the **background**. This is because the chart initially occupies the entire area available on a chart sheet. However, you

can resize the chart to reveal the background and then add a picture to the background to brighten up the page for display purposes.

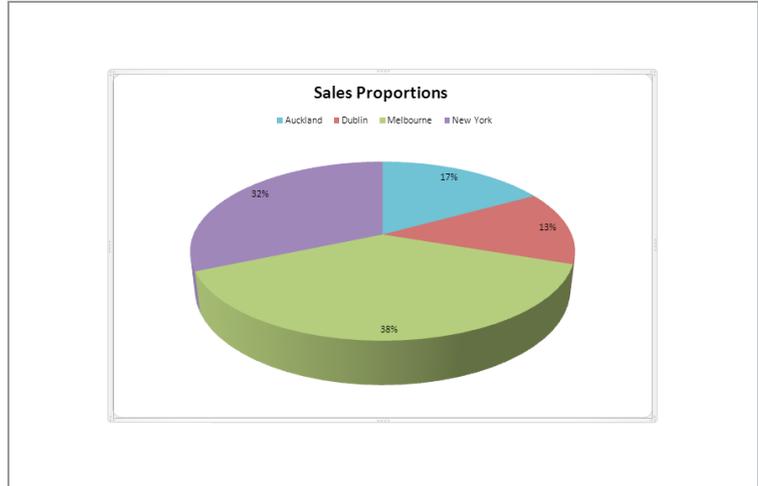
Try This Yourself:

Same
File

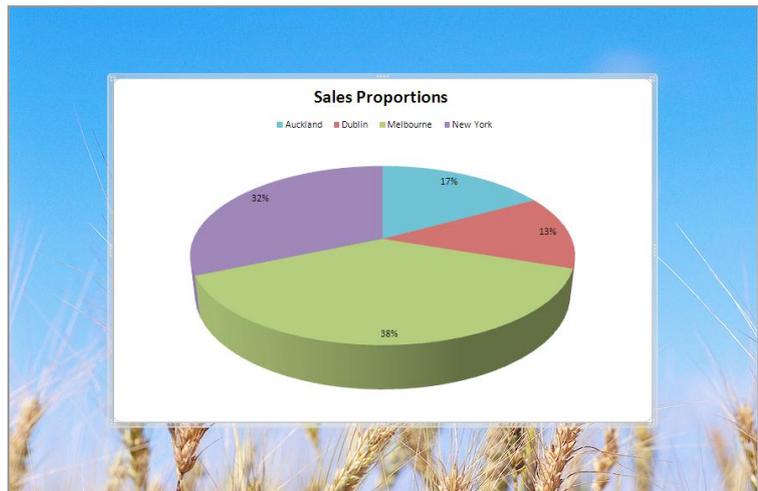
Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_9.xlsx...*

- 1 Click on the **Sales Pie Chart** chart sheet tab, click on the white chart area, then drag down and in from the top right-hand corner to resize it to about $\frac{2}{3}$ of the original size
- 2 Move the mouse pointer to the top, left of the chart area, then drag the chart into the centre of the background
- 3 Click on the **Page Layout** tab of the **Ribbon**, then click on **Background**  in the **Page Setup** group, to display the **Sheet Background** dialog box
- 4 Navigate to the **Course Files for Excel 2010** folder, click on **E833 Background.jpg** and click on **[Insert]**

The image will appear behind the chart



2



4

For Your Reference...

To **fill** the **background**:

1. Size down the chart and reposition if necessary to reveal the background
2. Click on **Background**  on the **Page Layout** tab
3. Locate the image, then click on **[Insert]**

Handy to Know...

- **Background** graphics are for display only and do not print. If you want a picture to print, you should add it in the **chart area**.
- You can remove a background picture by clicking on **Delete Background**  on the **Page Layout** tab.

THE FORMAT DIALOG BOX

Each object in a chart can be formatted and adjusted in a myriad of ways. These settings are so numerous that they would just not fit on a ribbon or in a single dialog box, so Excel has

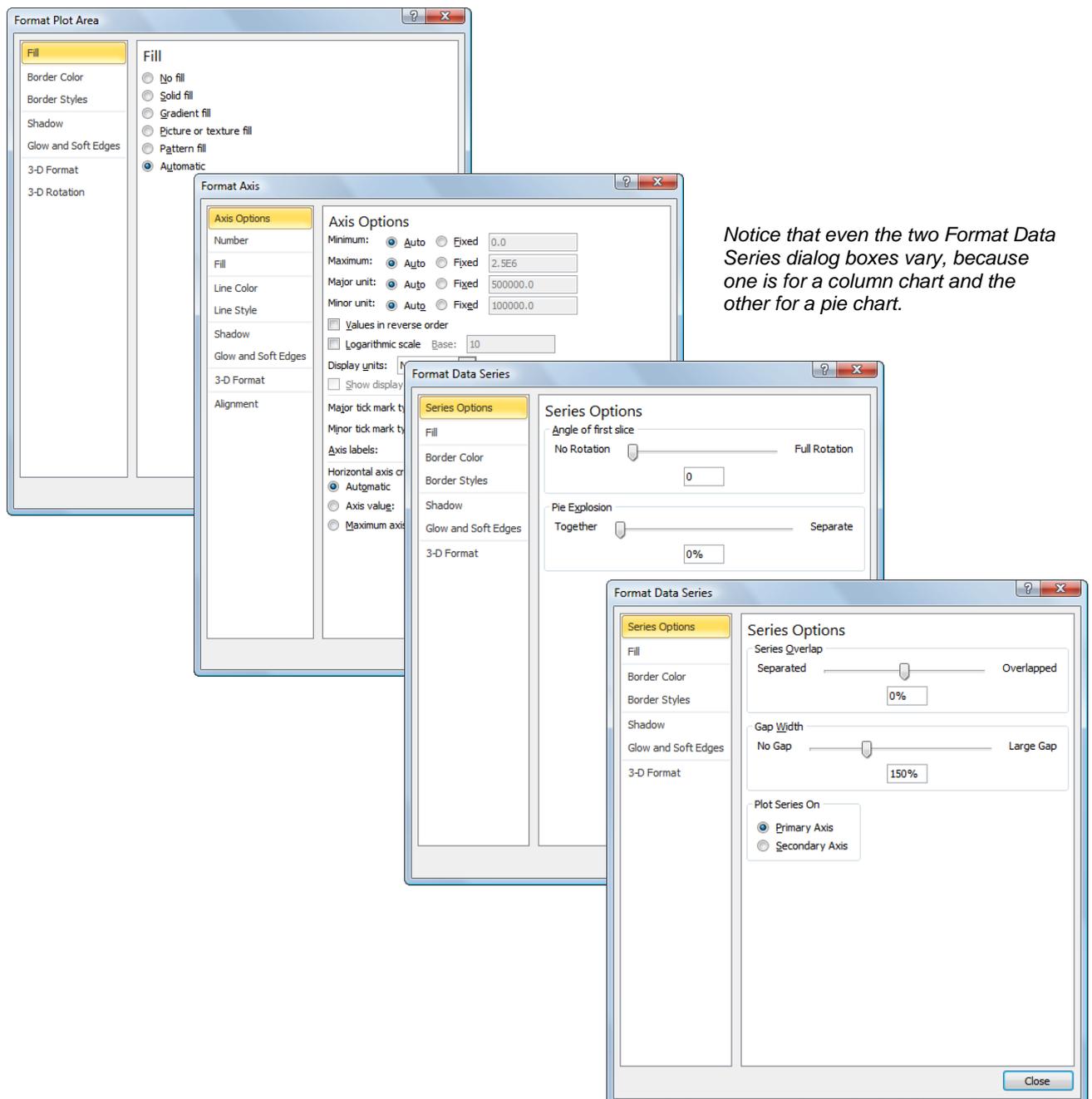
created many dialog boxes for the purpose and each of these is prefixed **Format**. This page examines some examples of the **Format** dialog box and how they are used and accessed.

Accessing the Format Dialog Box

The **Format** dialog box for each object or element on a chart can be displayed by selecting the element and then clicking on **Format Selection**  or on the dialog box launcher for **Shape Styles**, or by right-clicking on the element and selecting **Format....**

Variation in the Format Dialog Box

Depending upon the element that you have selected when you display the **Format** dialog box, and the **type** of chart that you are working with, you will see a series of setting categories and various controls within these. Some samples are shown below:



Notice that even the two Format Data Series dialog boxes vary, because one is for a column chart and the other for a pie chart.

USING THE FORMAT DIALOG BOX

The **Format** dialog box includes a series of categories of settings for the chart element that you had selected when you displayed the dialog box. These categories vary as do the settings in

each category. However, the controls provide great flexibility and allow you to take formatting to a whole new level.

Try This Yourself:

Same
File

Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_10.xlsx...*

1 On the **Sales Pie Chart** chart sheet, click on the pie to select the slices

2 On the **Chart Tools: Format** tab of the **Ribbon**, click on **Format Selection**  in the **Current Selection** group, to display the **Format Data Series** dialog box

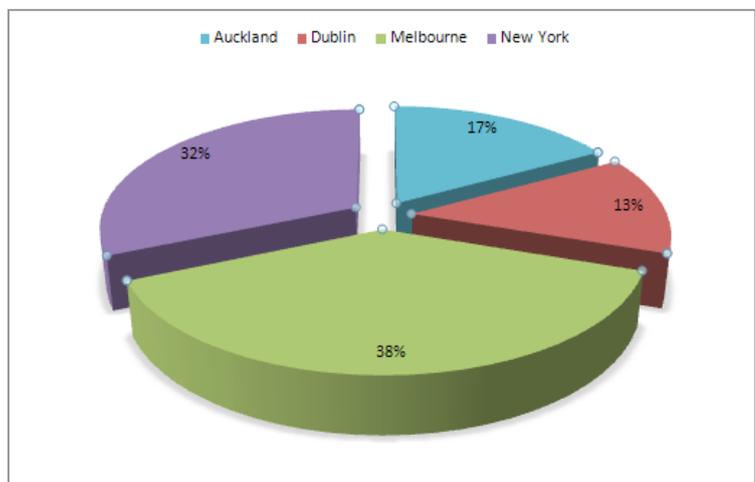
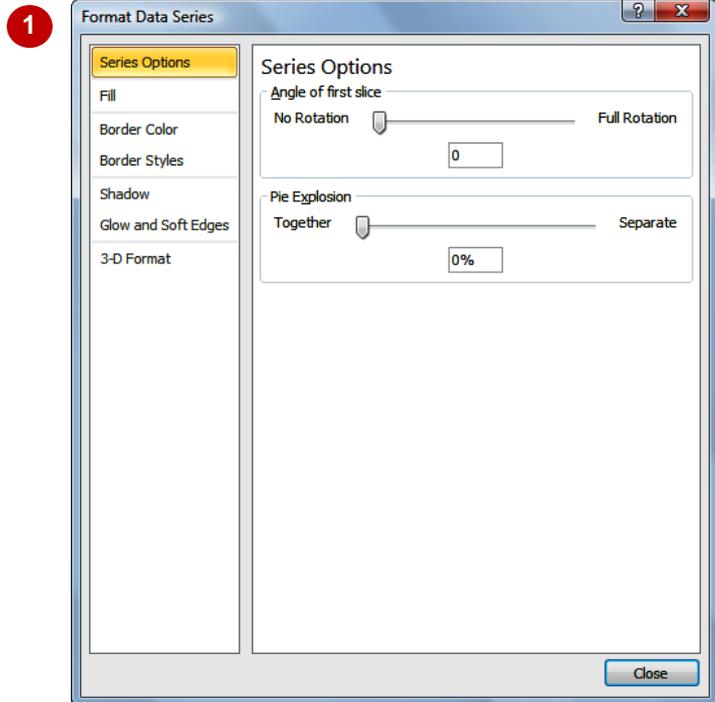
The controls relate specifically to a pie chart...

3 Select the percentage amount in **Pie Explosion** and type **12**

4 Click on the **Shadow** category, then click on **Presets** under **Shadow** and click on **Perspective Diagonal Lower Right** (last option)

5 Click on **[Close]**

The changes will be applied to the chart



For Your Reference...

To **use** the **Format dialog box**:

1. Click on the chart element
2. Click on **Format Selection** 
3. Make the required changes
4. Click on **[Close]**

Handy to Know...

- While you have the **Format** dialog box open, you can click on different parts of the chart and the **Format** dialog box will change automatically to display the relevant settings.

USING THEMES

If you can't be bothered fiddling around with the fine detail of formatting a chart, or simply don't have time to indulge in fancy formatting, you can use a **theme** to change the appearance of a

chart. The advantages of using themes are that there is a wide range to select from, they format all aspects of the chart and they are consistent if you need to format charts in separate workbooks.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E833 Chart Formatting_11.xlsx...*

- 1 Click on the **Costs By Month** chart sheet tab, then click on the white edge of the chart to select the chart area

This is a standard column chart with colour and effect changes. The chart needs to be reset before you can apply a theme...

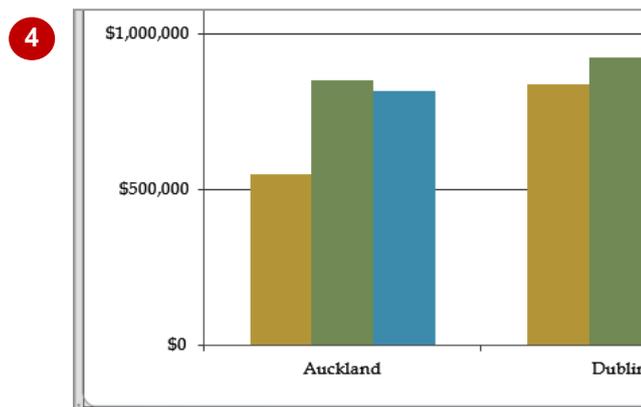
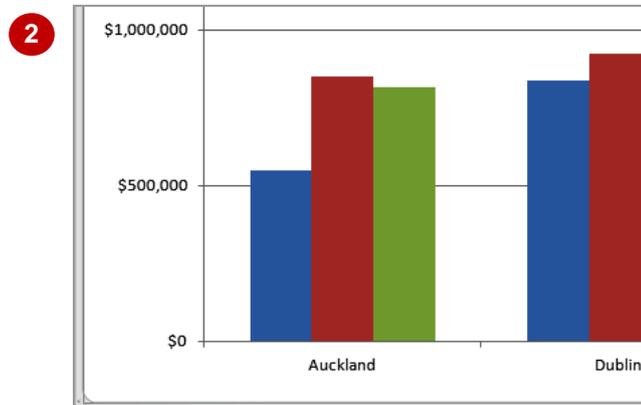
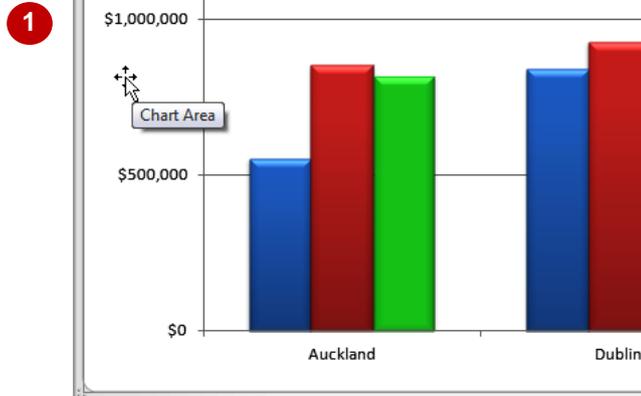
- 2 Click on the **Chart Tools: Format** tab, then click on **Reset to Match Style** 

This removes all individual modifications such as colour changes and shape effects...

- 3 Click on the **Page Layout** tab, then click on **Themes**  to display the list

- 4 Click on **Apex** (or a theme of your choice) to apply the formatting changes, then click outside the chart to deselect it

Notice the change to the fonts and colours



For Your Reference...

To **apply a theme** to a **chart**:

1. Select the chart
2. Click on the **Page Layout** tab then click on **Themes** 
3. Select the required theme

Handy to Know...

- Before you apply a theme to a chart, you must remove any existing formats that you don't want retained, by clicking on **Reset to Match Style** . Individual changes to shape fill, outlines and effects override themes.
- Themes format the **entire** workbook.