


DATASTREAM CHARTING

GETTING STARTED GUIDE

- This short guide outlines the main features of Datastream Charting.
- For more detailed information on using the product, please click the online help button  at the top right of each page.
- E-learning video topics are available here:

<http://training.thomsonreuters.com/portal/product.php?pid=8>

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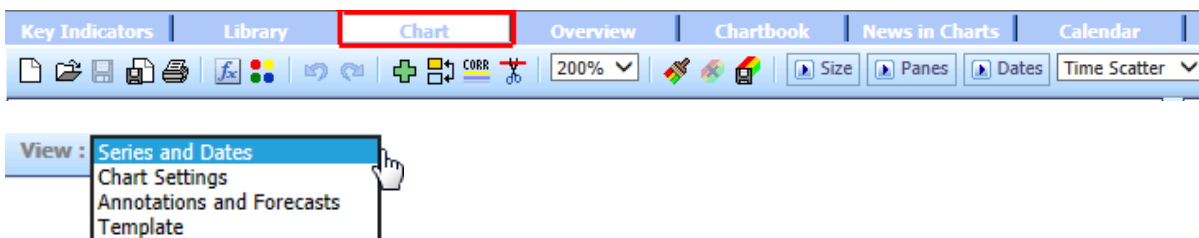


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ADDING SERIES TO CHARTS

Select the Chart tab at the top of the page, then the Series and Dates panel. Access this option from the dropdown at the top of the series panel.



If necessary, click the New Chart button on the toolbar:



To add series to the chart you can either start typing the name and see if it is suggested by 'Series suggest', or look up the series you require using the code lookup tool Navigator. If you already know the code of the series, simply type it into the text box for Line 1.

Series suggest

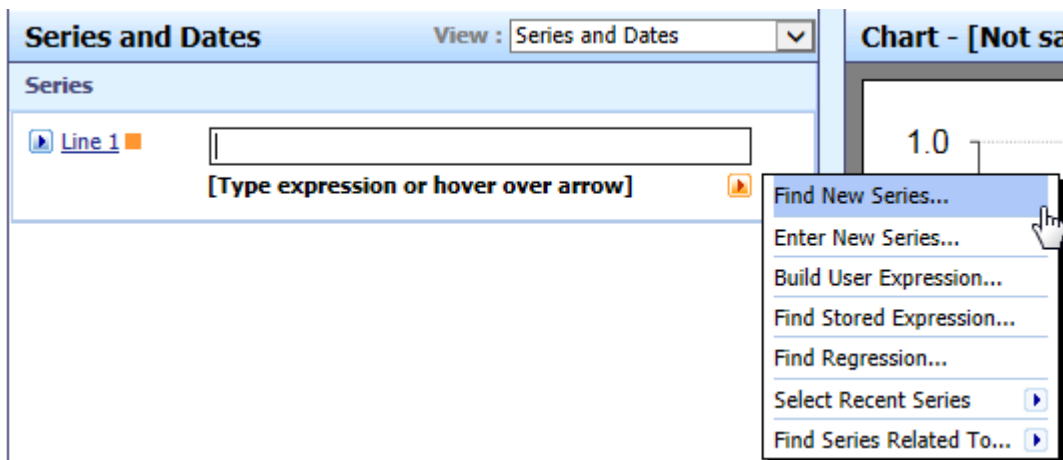
You can use the series suggest option to select mnemonic or expression that you wish to use. Type the first few letters or words of the series you want to select in the text box, for example 'apple'. A drop down displays the closest five matches.



Select the required series from the list or click on the top row to continue searching for more choices in Navigator.

Using Navigator

Hover over the flyout button  and click the **Find New Series...** option in the menu.



Use the search tools or browse through the folders in the Explorer tab to find the series you require and click the hyperlinked name or code to return it to the chart page.


Typing in directly

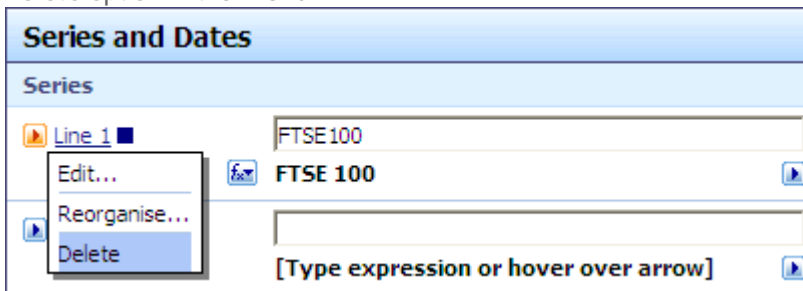
If you know the code of the series you want, just type it into the box and hit the Enter key or click the **Apply Changes** button in the middle of the chart. As soon as you start typing, a second box will appear ready for your second line.

Recent series and related series

You can also use the series flyout menu to select one of your 10 most recently used series, or to open Navigator to display any series related to one of your recently used series.

Deleting lines

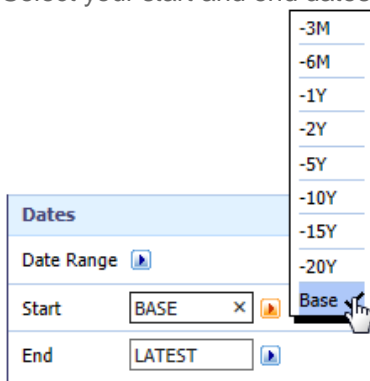
To delete a line, hover your mouse over the flyout button  to the left of the line number and click the **Delete** option in the menu.



SETTING THE DATE RANGE

Start and end dates

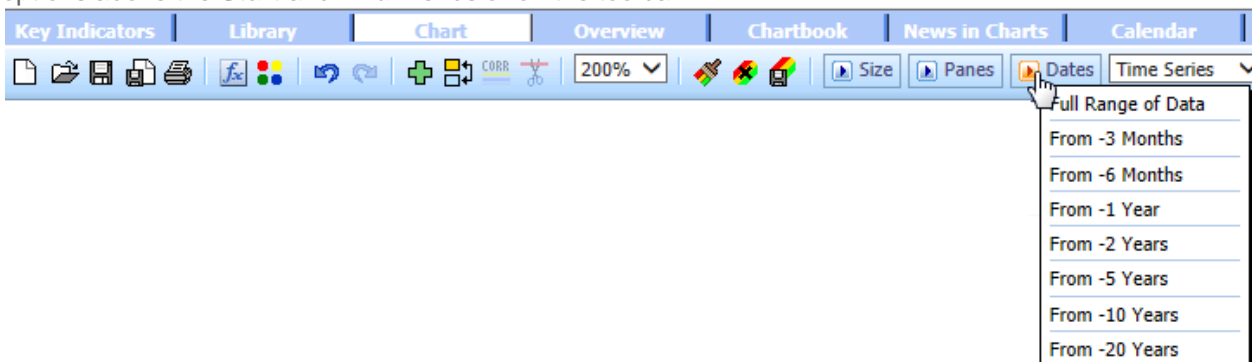
Select your start and end dates from the flyout buttons in the **Dates** section below the **Series**.



Alternatively, type in the required relative date, e.g. -25Y, or absolute date, e.g. 01/03/08.

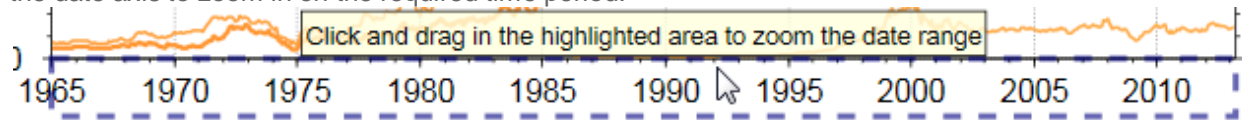
Date range

To set a date range, i.e. to set both the start and end dates in one click, select from the **Date Range** options above the **Start** and **End** menus or on the toolbar.



Drag to zoom

If you have the SVG Viewer installed or you have Internet Explorer 9, you can left click and drag under the date axis to zoom in on the required time period.



Use the **Undo** button on the toolbar to reset the range.

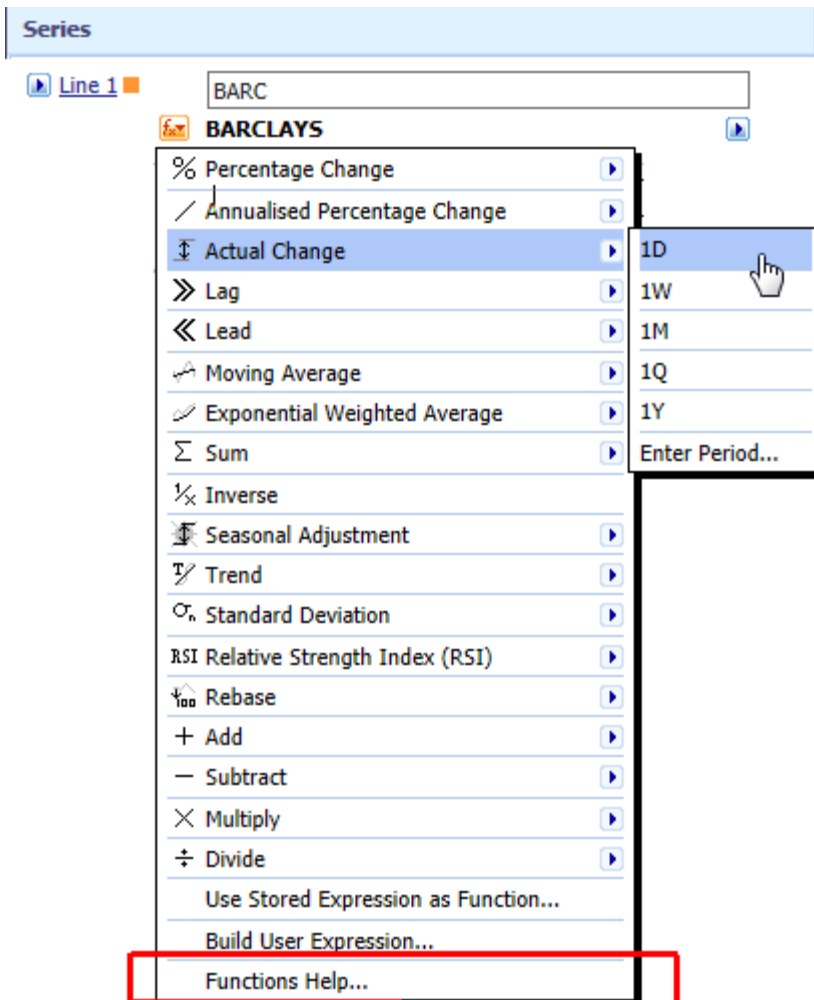


APPLYING FUNCTIONS AND USING STORED EXPRESSIONS

Functions

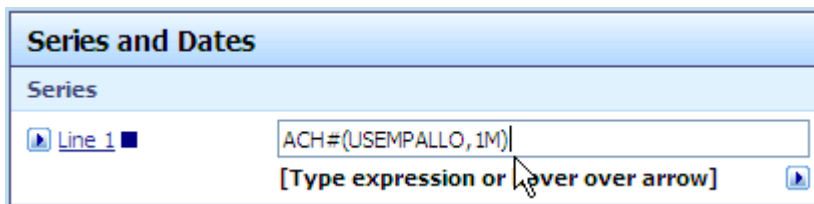
To apply a function to a series, hover over the function flyout to the left of the series name and select the required function and parameter. Click once to apply it to the series.

You can nest functions by using the next available function flyout.

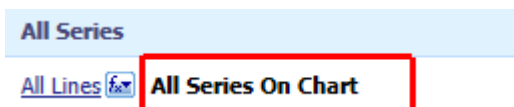


The most frequently used functions are listed on the menu. For further choices click **Functions Help...**

If you know the function or expression you require, you can type it directly into the series box.

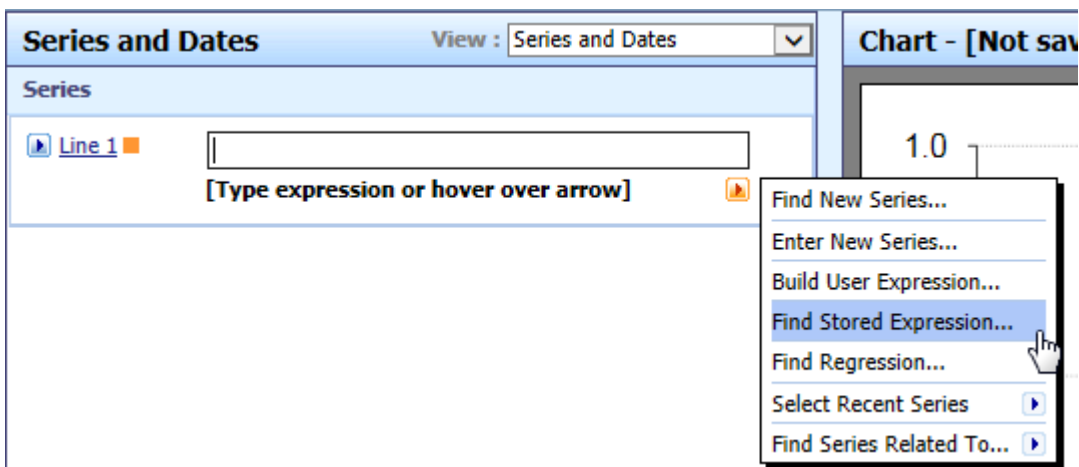


To apply a function to all the series on the chart in a single click, use the **All Series on Chart** function menu below the series.

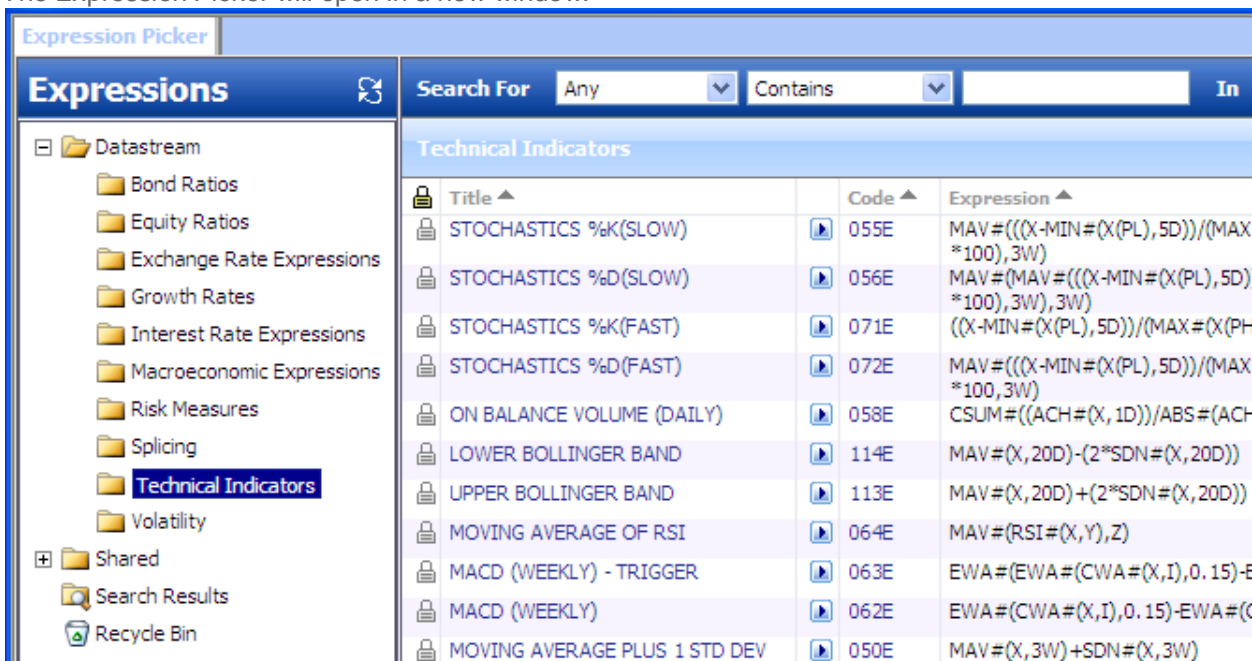


Stored expressions

Several hundred useful pre-formatted Datastream expressions are available. Select one using the **Find Stored Expression...** option on the series flyout menu.

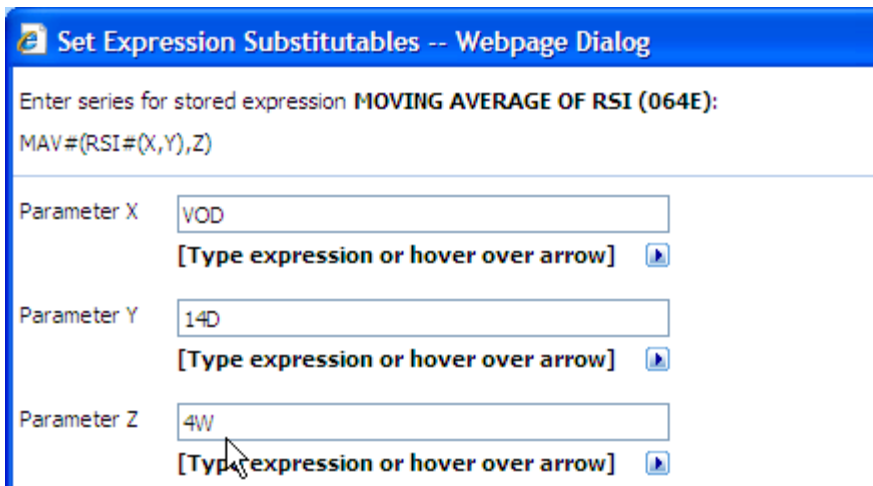


The Expression Picker will open in a new window.

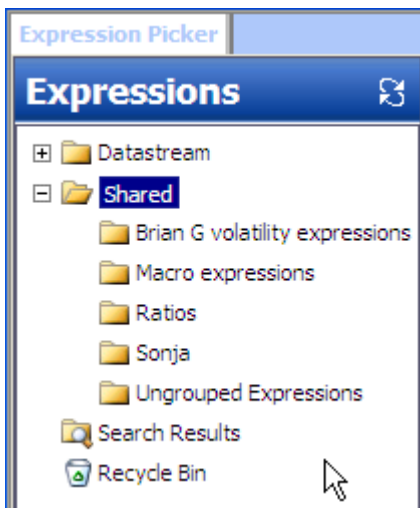


Select the expression you require by clicking the hyperlinked title or code.

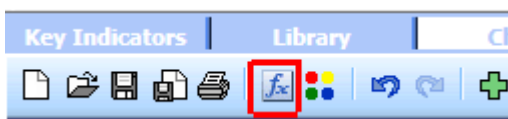
If the expression contains any symbolic variables, specify the series or parameters you wish to use.



Use the tools in the Expression Picker to create folders and organize your expressions.

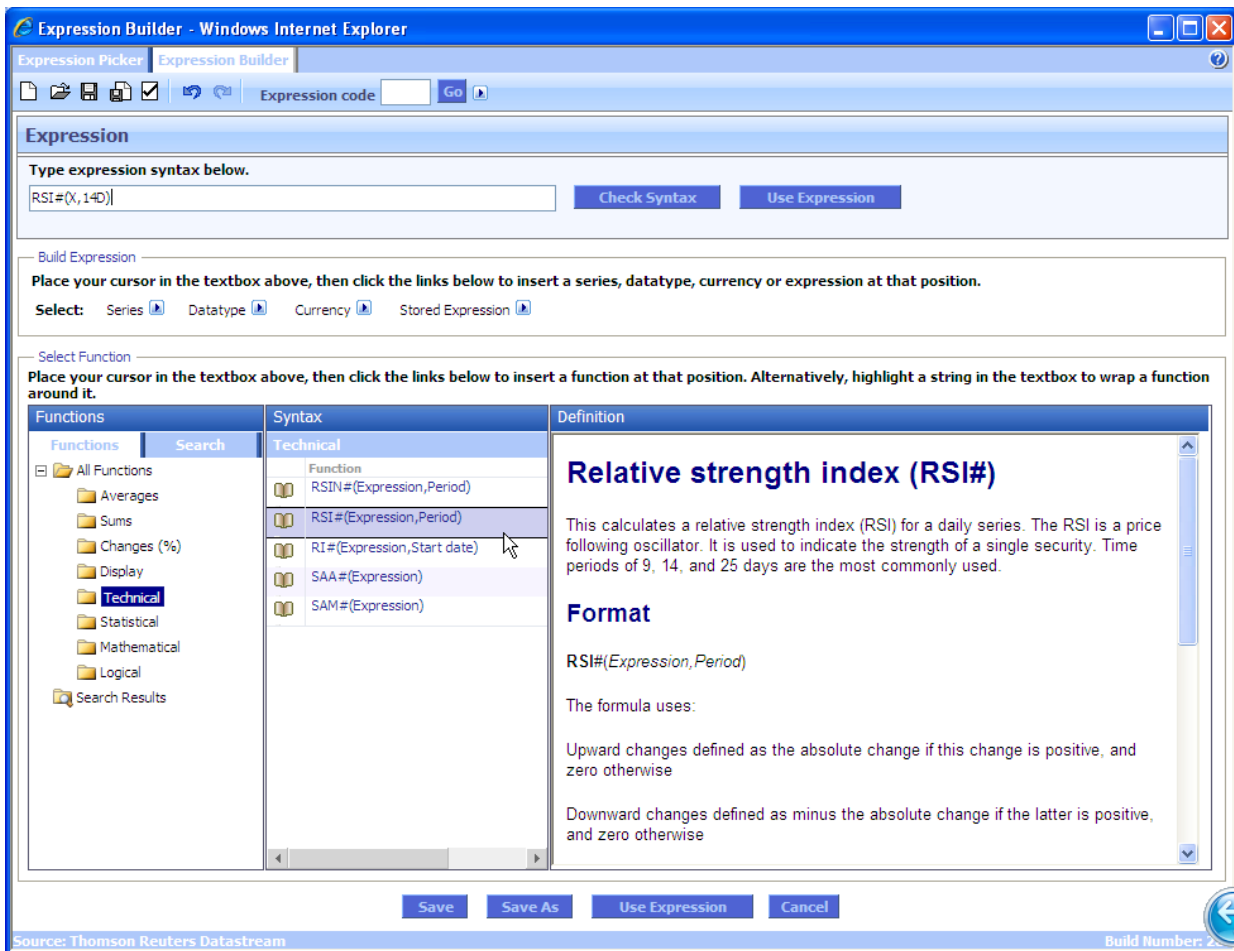


You can create and store your own expressions using the Expression Builder. Click on the icon on the toolbar to open the Expression Builder.



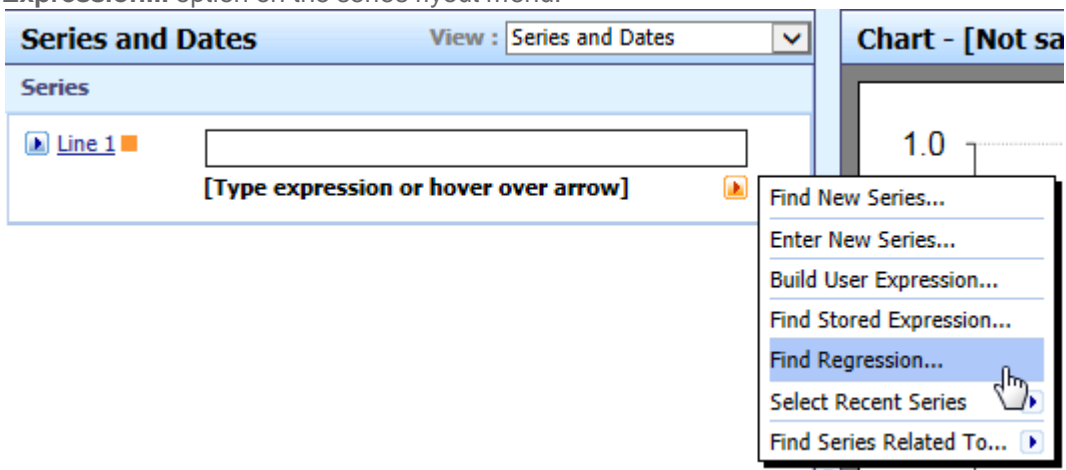
Use the links to select functions, datatypes, currencies, series and so on as required and then save the expression for easy retrieval later.

You can include symbolic variables if you wish, and then replace these with a specific series or date parameter when you use the expression in the future.

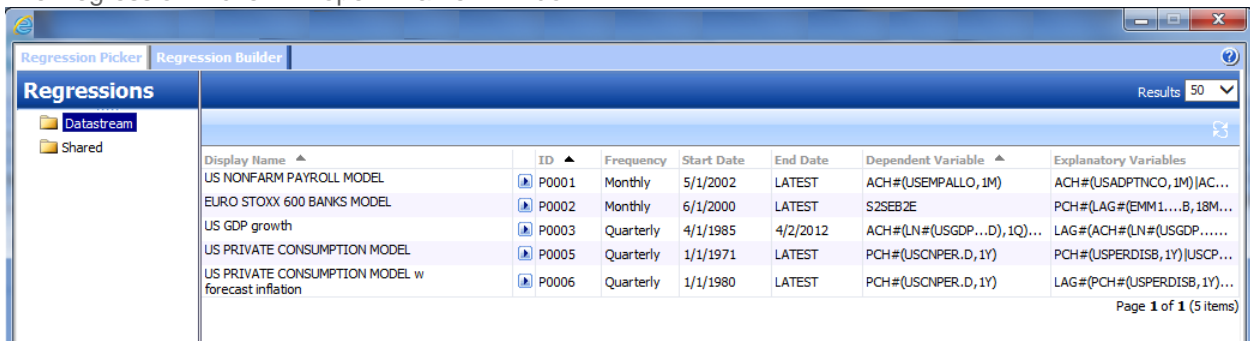


Stored regression

Several useful pre-formatted Datastream regressions are available. Select one using the **Find Expression...** option on the series flyout menu.

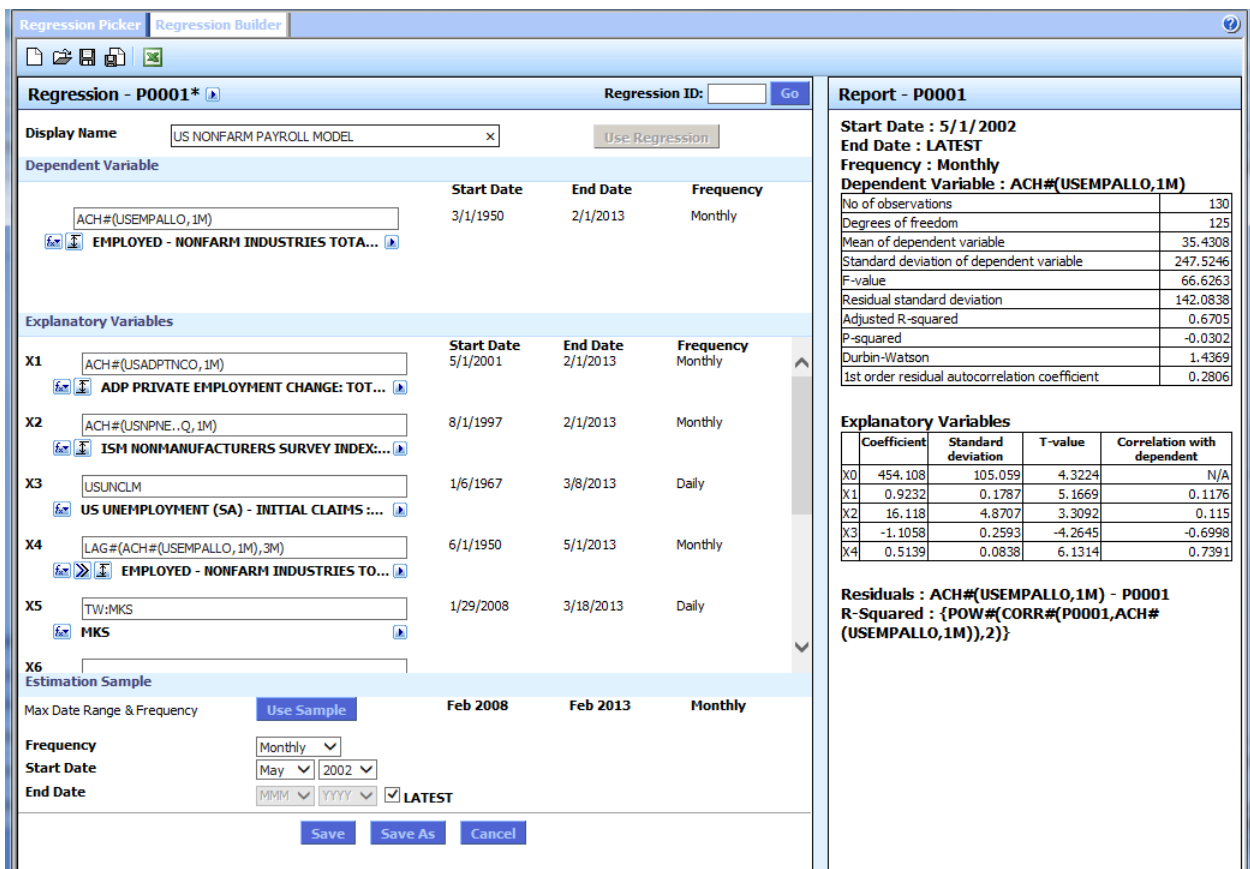
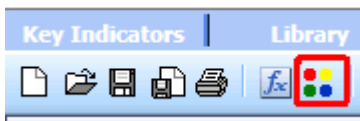


The Regression Picker will open in a new window.



Select the regression you require, for more information [click here](#).

You can create your own regression using the Regression Builder. Click on the icon on the toolbar to open the Regression Builder, for more information [click here](#).




Correlation

Click the correlation button on the toolbar to calculate the correlation between the lines on the chart.



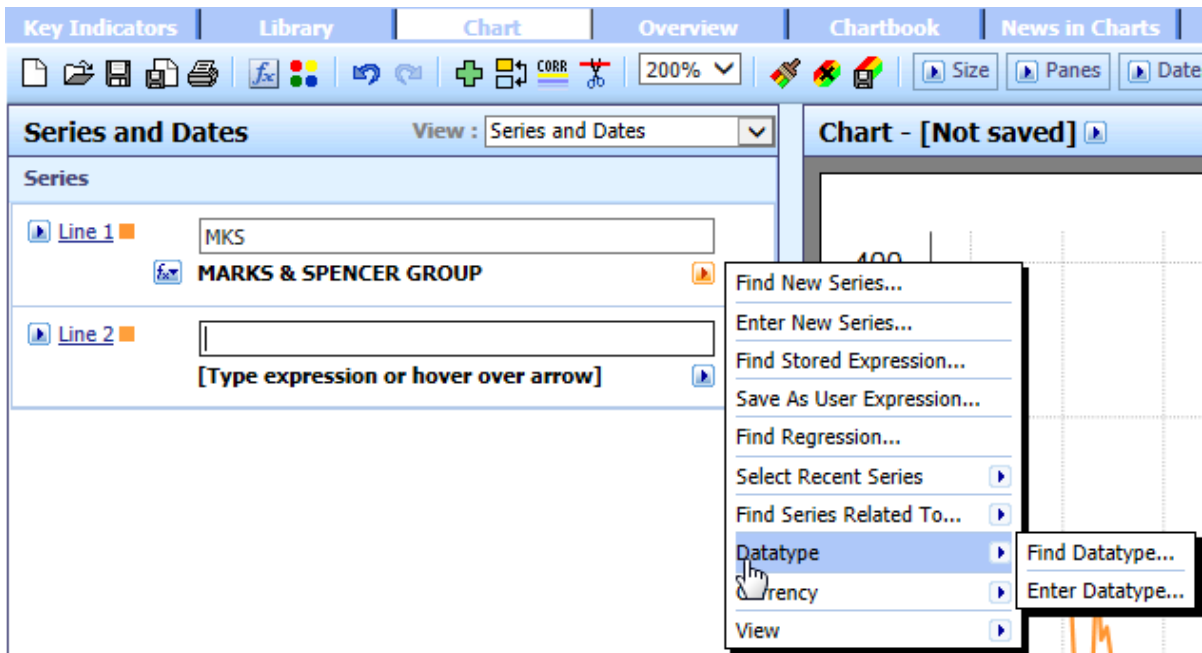
A table appears showing the correlation coefficients between the lines on the chart when various leads and lags are applied. The best fit (highest correlation) is highlighted in yellow. In the example below, the closest relationship between the two lines is when a 3 month lag is applied to line 2. In other words, line 2 tends to lead line 1 by 3 months.

Lag 	Line 2	Apply
12M	0.480	<input type="checkbox"/>
11M	0.515	<input type="checkbox"/>
10M	0.560	<input type="checkbox"/>
9M	0.604	<input type="checkbox"/>
8M	0.646	<input type="checkbox"/>
7M	0.679	<input type="checkbox"/>
6M	0.710	<input type="checkbox"/>
5M	0.738	<input type="checkbox"/>
4M	0.753	<input type="checkbox"/>
3M	0.765	<input checked="" type="checkbox"/>
2M	0.758	<input type="checkbox"/>
1M	0.732	<input type="checkbox"/>
0M	0.677	<input type="checkbox"/>
-1M	0.635	<input type="checkbox"/>

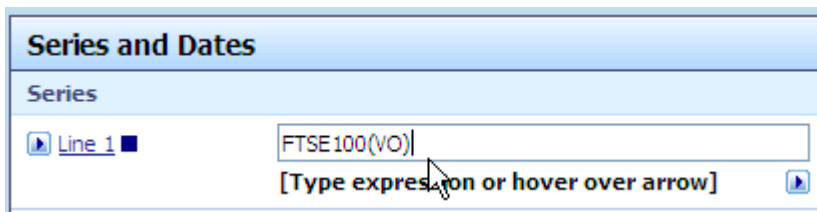
APPLYING DATATYPES AND CURRENCIES

Datatypes

The datatype defines the type of data. For example, the default datatype for an equity is the closing price, but you can use a datatype to retrieve data for the opening price instead. To apply a datatype to a series on your chart, click on the **Find Datatype** flyout option to the right of the series box to open **Navigator** and find the required datatype.

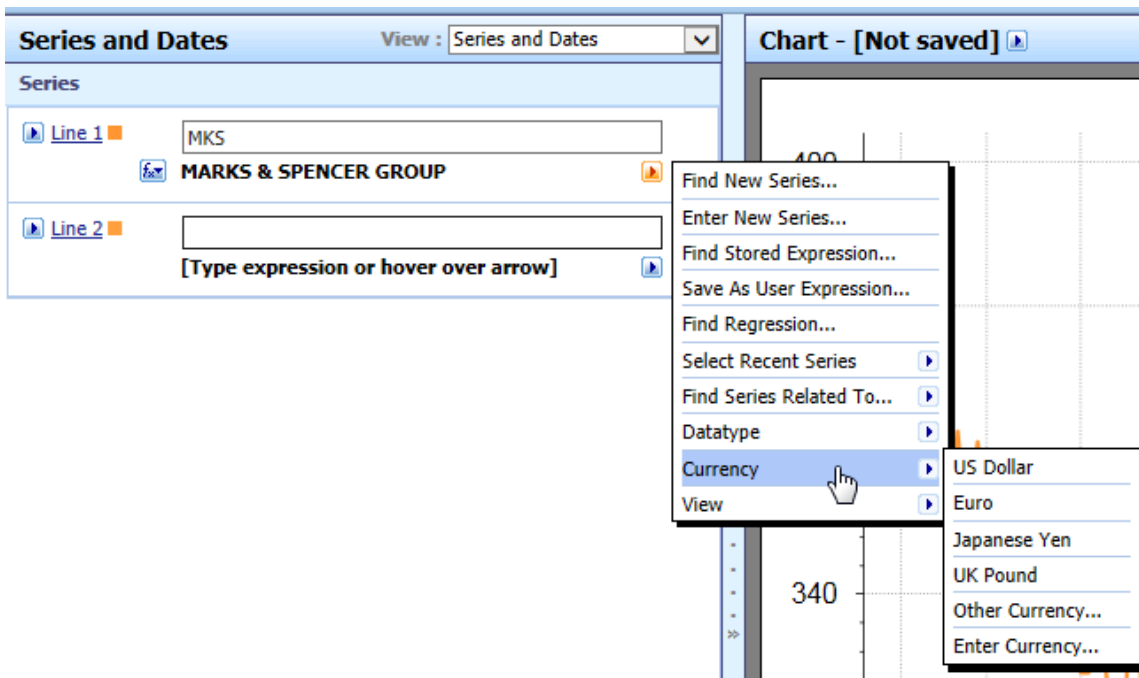


Alternatively, if you know the datatype you require, you can type it in brackets (parentheses) after the series code.

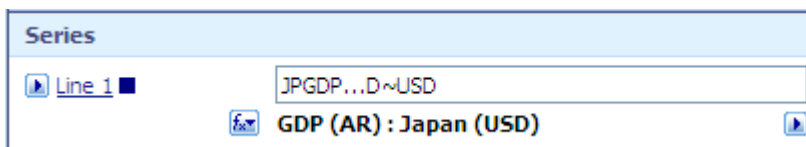


Currencies

To convert the currency of a series, click on the **Currency** flyout to the right of the series box and choose from the menu.

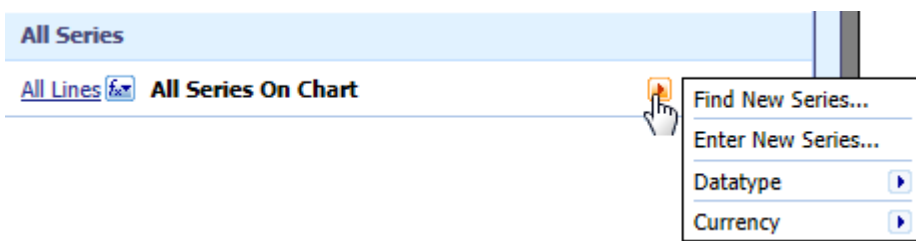


Alternatively, if you know the 3 character ISO code or 2 characters Datastream code for the required currency, type it in using tilde (~) after the series code.



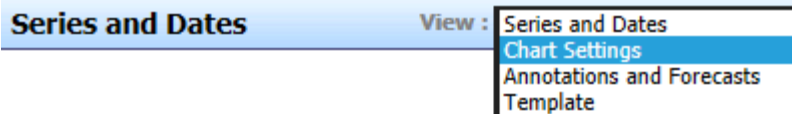
Multiple series

To apply Series or datatypes or currencies to all the series on the chart in one action, use the flyout menu to the right of **All Series on Chart**.



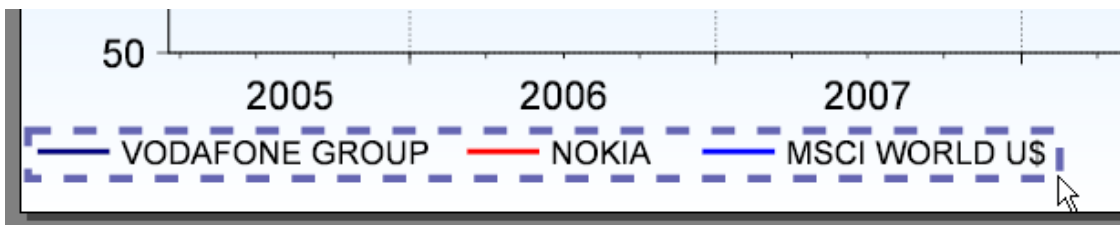
FORMATTING YOUR CHART

Most options for formatting the charts can be found on the **Chart Settings** panel. Access this option from the dropdown at the top of the series panel.



Here you can apply titles and subtitles to the chart, customize the text and position of the legend, switch gridlines on or off and format the chart axes. Click on the links to the left of the chart to see the various settings available.

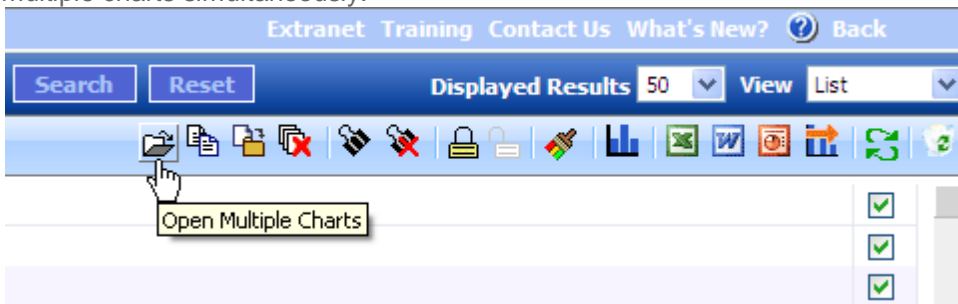
Alternatively, if you have the SVG Viewer installed or Internet Explorer 9, left click on the required element in the chart. For example, to edit the legend settings, hover your mouse over the legend until the dashed blue line appears around it and then left click once to edit the properties of the legend.



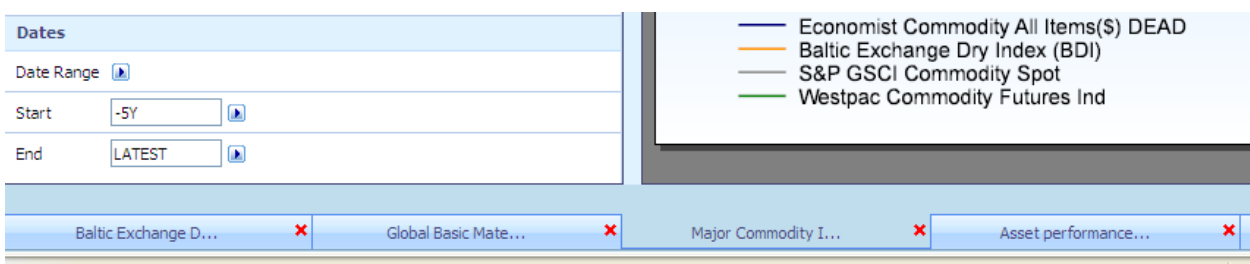
Multi-chart editing

Charts can now be displayed on multiple tabs, allowing you to open multiple charts with a single click for editing, rather than making repeated trips to the Library.

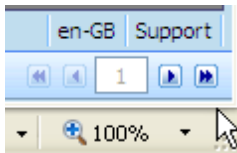
Use the check boxes and the button on the toolbar in the Library or in the Open Chart window to open multiple charts simultaneously:



The open charts will be displayed on separate tabs at the bottom of the Chart page.

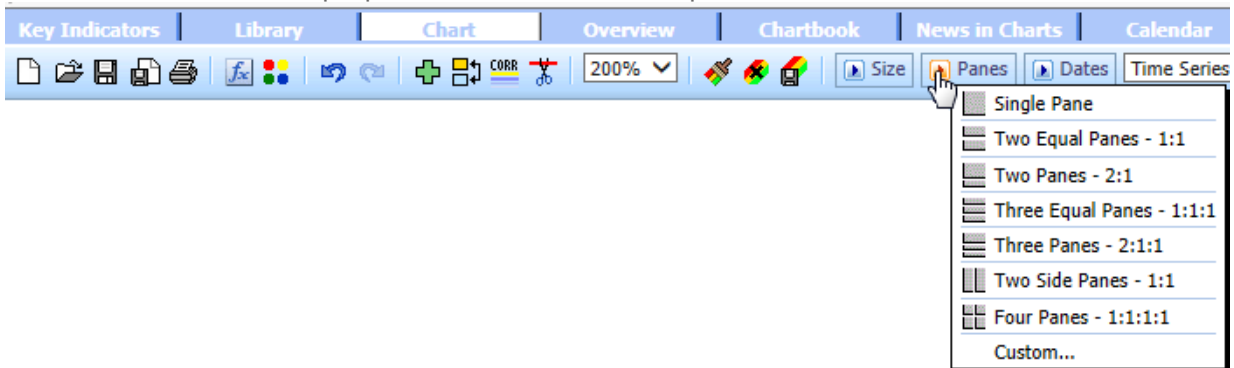


If you open more than 5 charts, you can page through them 5 at a time.



Multi-pane charts

To create a chart with multiple panes, click on the Panes option on the toolbar.

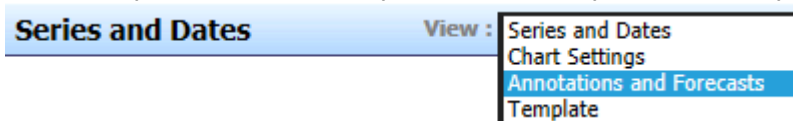


You can choose from one of the preformatted layouts or use the **Custom...** option to set your own matrix of rows and columns and define the proportions of each using percentages or ratios (3:2).

Individual panes can have different date ranges, frequency and styling.

ANNOTATING YOUR CHART

You can add text, lines, arrows and recession bands to the chart by clicking the **Annotations and Forecasts** panel. Access this option from the dropdown at the top of the series panel.



Series annotations

These will be linked to the date and series value you select so that when you refresh the chart in future the annotation will still be attached to the same data point, even if the data has moved along the chart. Chart annotations

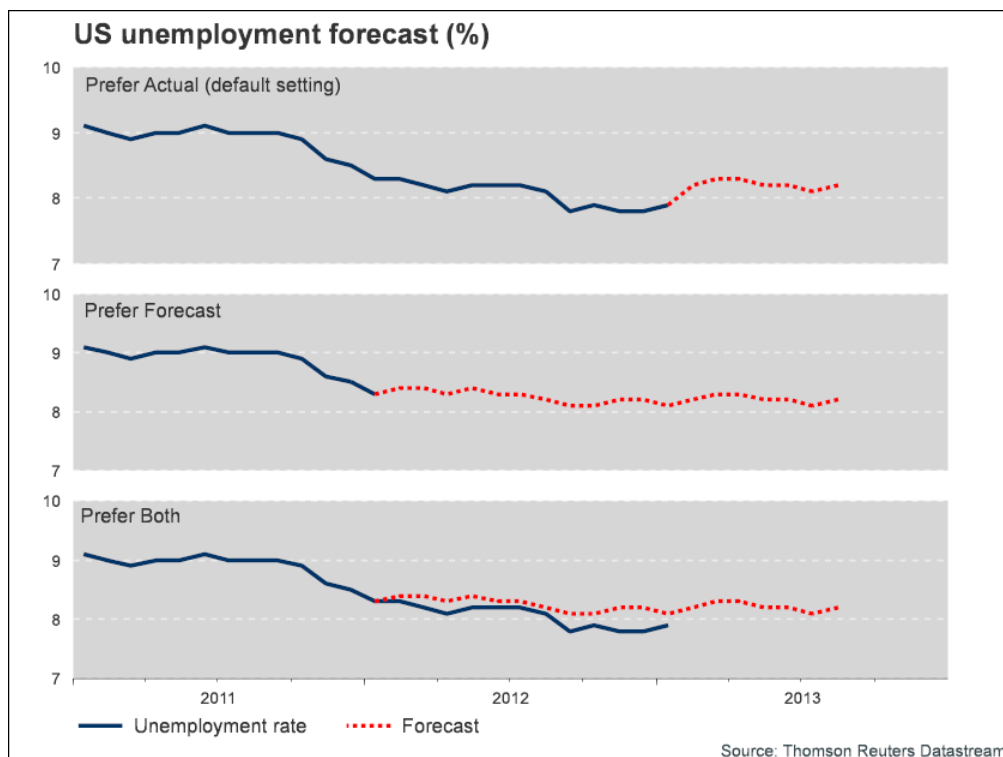
Add text boxes anywhere on the chart, or apply horizontal or vertical lines linked to a specific value or date. If you have the SVG Viewer installed or you have Internet Explorer 9 you can also apply circles, rectangles and freehand lines or arrows to the chart and drag these to the required position.

Forecasts

You can add your own forecast values to a series by clicking the Add Forecast link. Multiple forecasts can be added for each line on a time series chart and styled as required. When actual values are released these will display in preference to your forecast values.

This popular feature has a number of enhancements to make it even more flexible.

- Add forecasts at your preferred frequency, for example after changing the frequency of your chart to annual. **Note:** if you subsequently change the chart frequency, you will have to reenter your forecast values at the new frequency.
- When new actual values are released for the period of your forecast, choose whether to show the actual released values, your forecast values or both:

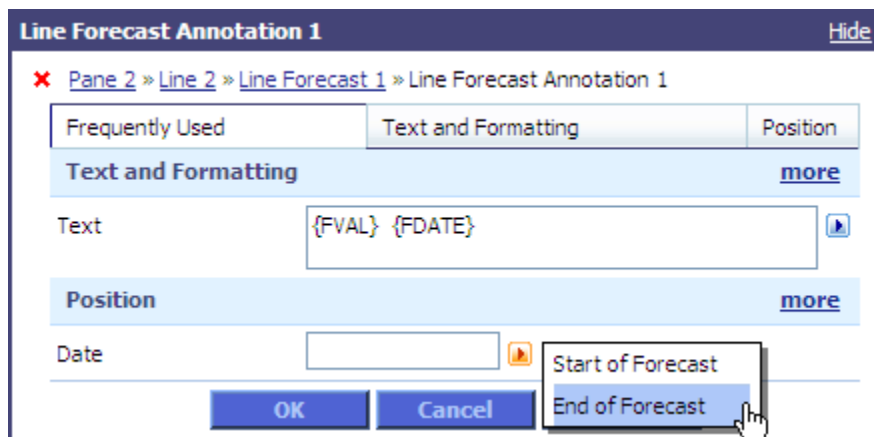


The values in the forecast dialog are colour coded to indicate which are displayed on the chart:

- Actual values in black if displayed on the chart, grey if not displayed
- Forecast values in blue if displayed on the chart, grey if not displayed

- Add annotations to forecasts – position these at a specified date or automatically attach to the start or the end of your forecast values.
- New substitutable text tokens are available specifically for user forecasts:

{FVAL} Forecast value
 {FDATE} Forecast date
 {FIRSTFD} Date of first forecast value
 {LASTFD} Date of last forecast value

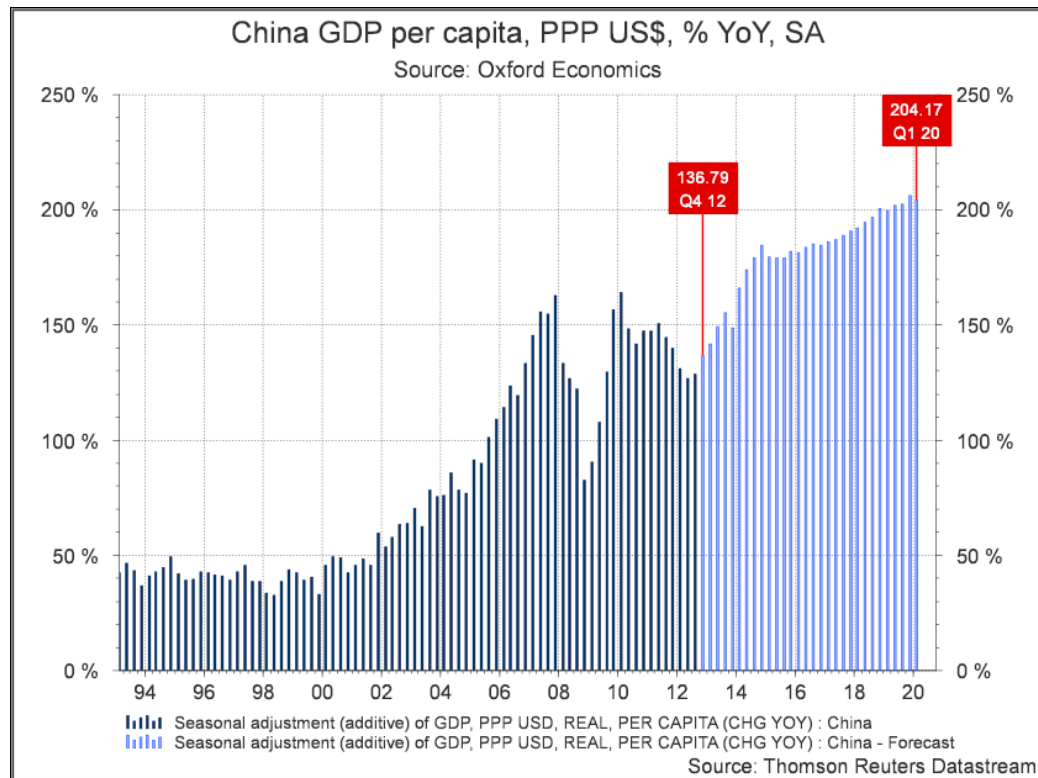


- Add forecasts to stored expressions (E numbers)
- Option for default legend, so you can reset to 'Forecast' easily

Third party forecasts

- Forecast series from selected third party suppliers which consist of a mix of actual values and forecast values are now displayed with any forecast values automatically shown with different styling. The forecast portion of the time series is also identified in the legend. The user can customize the styling and legend as required.

Note: When any such forecast value is used in a calculation the resulting value is also shown as a forecast.




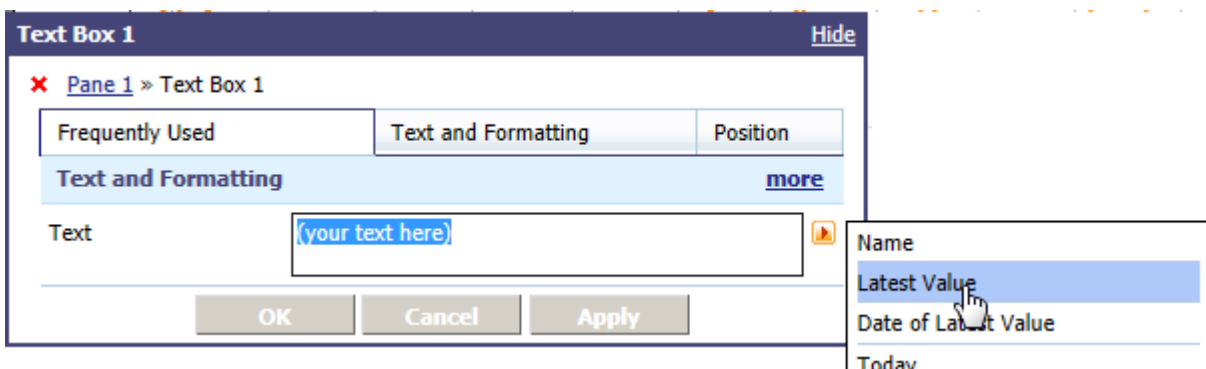
Substitutable text

You can use substitutable items in your annotations. Substitutable items will be converted to the correct text for your current chart settings when you refresh the chart.

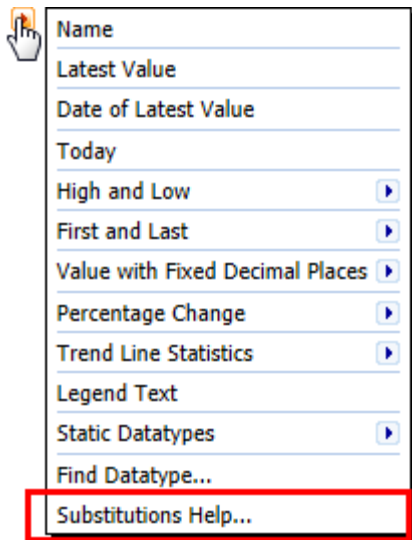
Substitutable items include static and time series datatypes, as well as certain functions and keywords.

Substitutable items should be entered inside curly brackets { } to differentiate them from fixed text. You can type them into the text box or select from the menu.

For example, to display the latest value of the first line on the chart, hover over the flyout arrow  to the right of the text box and select the **Latest Value** option from the menu. The text {VAL#} will appear in the text box and when you refresh the chart the value will appear in the text box.



For details of suitable datatypes, functions and keywords, click the **Substitutions Help...** option on the flyout menu.



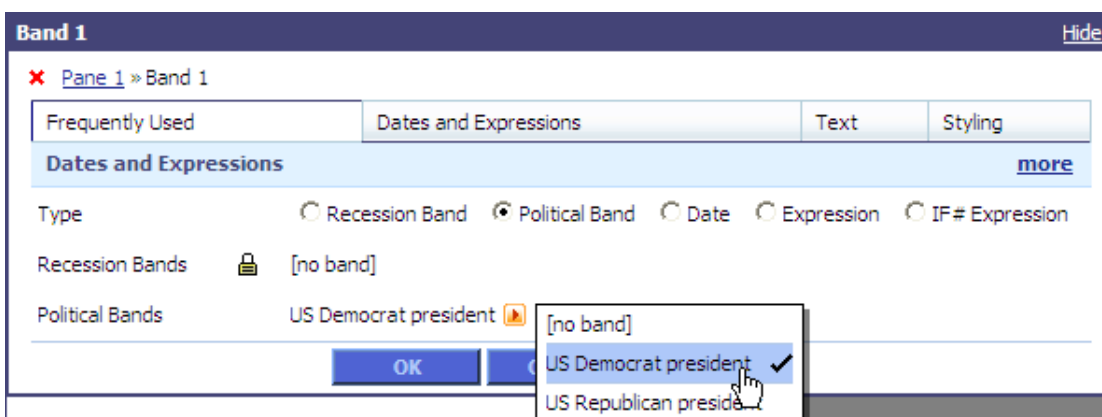
Substitutable text can also be used in any of the following text fields:

- Chart title
- Chart subtitle
- Pane title
- Axis title
- Custom legends
- Source attribution text

User created shaded bands

Building on the wide range of pre-formatted recession bands already available, this new tool will allow you to create custom bands, based on your own dates or on a condition.

Select the type of band required from the 5 options including ready-formatted bands for recessions in over 20 major economies, and bands for periods of office of US presidents:



Bands defined by dates

To shade areas of the chart between particular fixed dates, select the Date option:

Band 1 Hide

✖ Pane 1 » Band 1

Frequently Used | Dates and Expressions | Text | Styling

Band Options

Type ☐ Recession Band ☐ Political Band ☒ Date ☐ Expression ☐ IF # Expression

Recession Bands

Recession Bands [no band]

Political Bands [no band]

Custom Dates

Dates [Add/Modify Dates](#)

Conditional Expression

Type in your own start and end dates for each band. You can use absolute or relative dates:

User Band Dates

Define dates or paste a table of start and end dates into the last empty row

⊖ 09/03/2009

OK Cancel

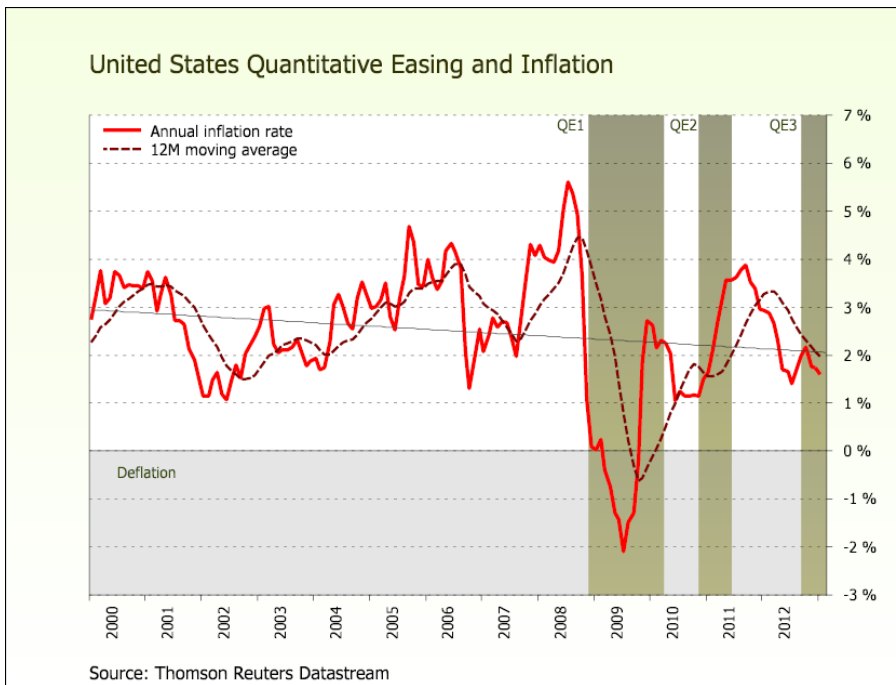
Latest Date

- Intraday
- +1M
- +3M
- +1Y

Add more bands as required:

You can also copy and paste a grid of dates from Excel:

	A1		
	A	B	C
1	25/11/2008	31/03/2010	
2	15/11/2010	15/06/2011	
3	13/09/2012	30/06/2013	



Bands based on conditional expressions

Generate the start and end date for each band automatically by using an expression to define a condition. Select the Expression option, and then specify your series/expression and parameters.

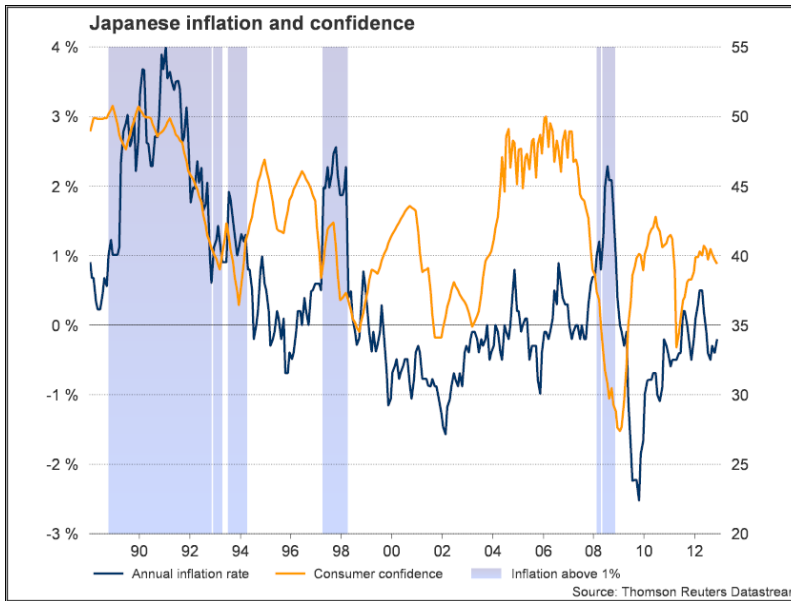
For example, to shade the chart when Japanese inflation (mnemonic: JPCPANNL) is over 1%:

Conditional Expression

Expression:
 CPI: NATIONAL MEASURE - ANNUAL INFLATION

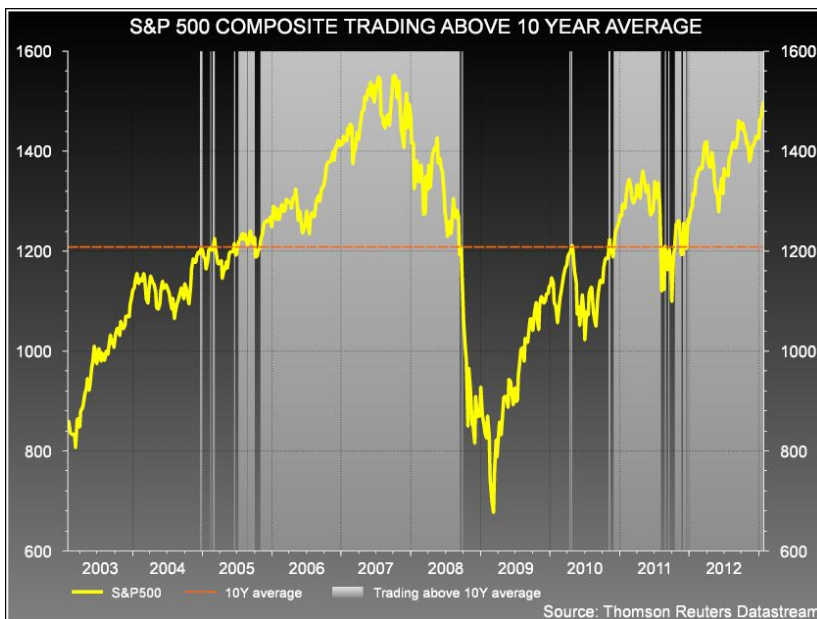
Operator:

Value:



UCTS and stored expressions (E numbers) are also supported in this dialog. Expressions with functions can be used in both fields, for example to show when the S&P 500 was trading above its 10 year average:

Conditional Expression	
Expression	S&PCOMP all
	S&P 500 COMPOSITE
Operator	Greater than all
Value	AVG#(S&PCOMP,-10Y,) all
	S&P 500 COMPOSITE



Advanced option

If preferred, users familiar with Datastream's powerful formula language can type expressions using the IF# function directly into the dialog, e.g. to define the period when Japanese debt as a percentage of GDP has exceeded 150%:

Conditional Expression

Expression

[Type expression or hover over arrow]

Operator

Value

Advanced

IF# Expression

OK Cancel Apply

Formatting

Multiple sets of bands with different styling can be added to the same chart.

Chart Shading

[Recession Bands](#)

User Defined Bands [Add User Defined Band](#)

[Deflation](#)

[Recession](#)

[GDP growth over 1%](#)

Styles

Style each set of bands individually and, if required, save these settings in a user defined style so you can re-use them on other charts.

Band 1 [Hide](#)

✖ [Pane 1](#) » Band 1

[Frequently Used](#) [Text](#) [Styling](#) [Dates and Expressions](#)

Styling

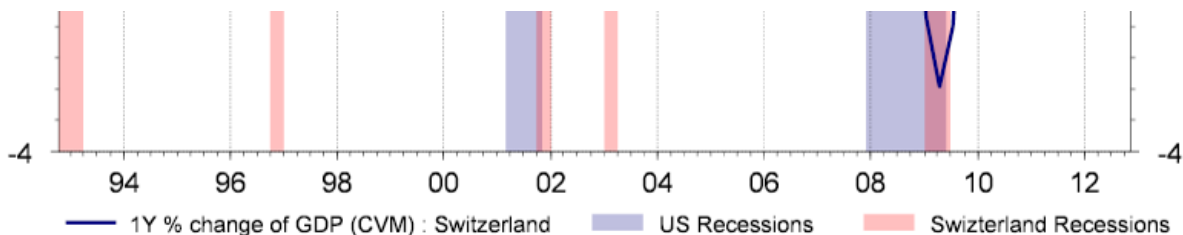
Fill 1

Fill 2

Transparency

OK Cancel Apply

You can set a custom legend for each set of bands:



Enter text to label the bands themselves on the chart and set the position of labels relative to one corner of each band:

Band 1

Hide

✕ Pane 1 » Band 1

Frequently Used

Dates and Expressions

Text

Styling

Text

Text

Deflation

Show in Legend

☒

Label Bands

☒

Label Horizontal Offset

84

Label Vertical Offset

-2

Offset From

Top Left Corner



Drag the labels to reposition them as required; all labels will move relative to their band. By default all labels will follow the Master Annotation font, but this can be overridden for each set of bands using the 'Current Annotation font'.

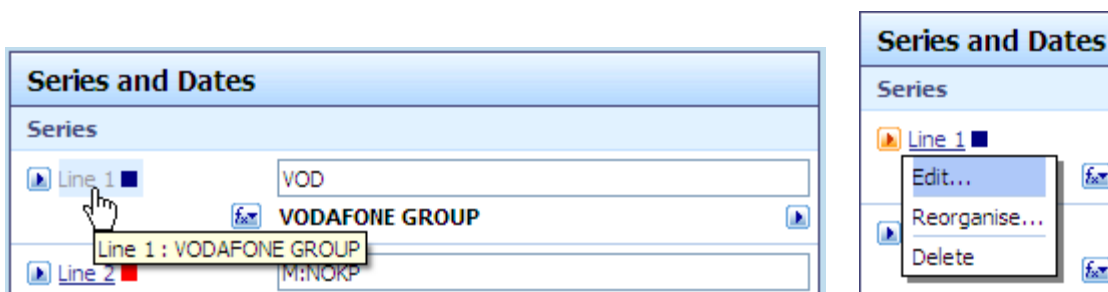
For custom labels, for example different colours/positions for each individual band use vertical line annotations.

Bands are interactive – click on the band to open the settings and amend. Click on the legend swatch or the label to edit the text.

STYLING YOUR CHART

Line settings

To style the lines on your chart, click on the hyperlinked line number on the **Series and Dates** panel or click the **Edit** option on the flyout menu to the left of the line number.

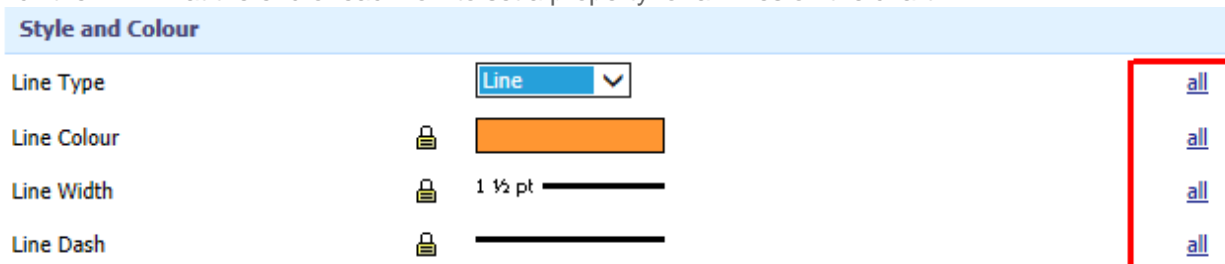


The line editor will open showing all the properties of the line. You can select from **Line**, **Bar**, **OHLC** (Open-High-Low- Close), **Candlestick** or **Area** line type. In this editor you can also set the colour, width and dash style of the lines and add markers to lines if required. You can also set degrees of transparency.

If you have the SVG Viewer installed or Internet Explorer 9 you can also left click directly on the line on the chart to access the properties.

All lines editor

Click the **All** link at the end of each row to set a property for all lines on the chart.



The **All Lines** editor will open. Here you can select from various properties in the box on the left and select the required setting on the right.

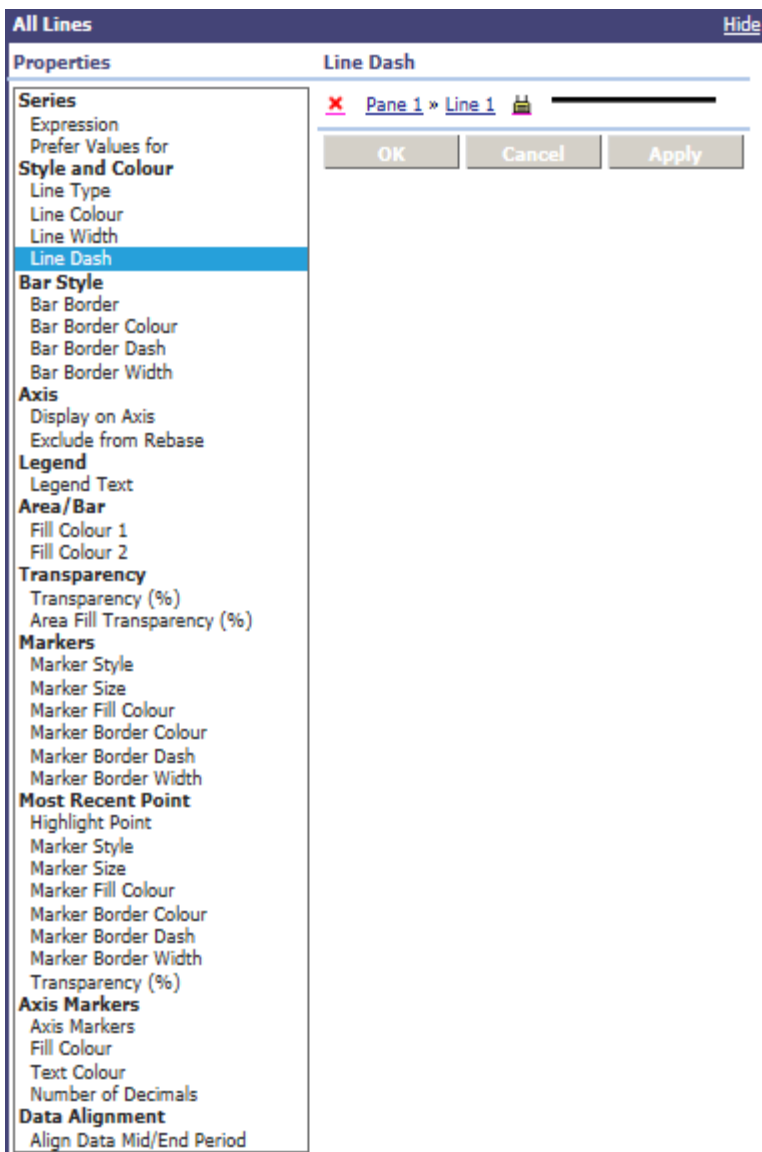
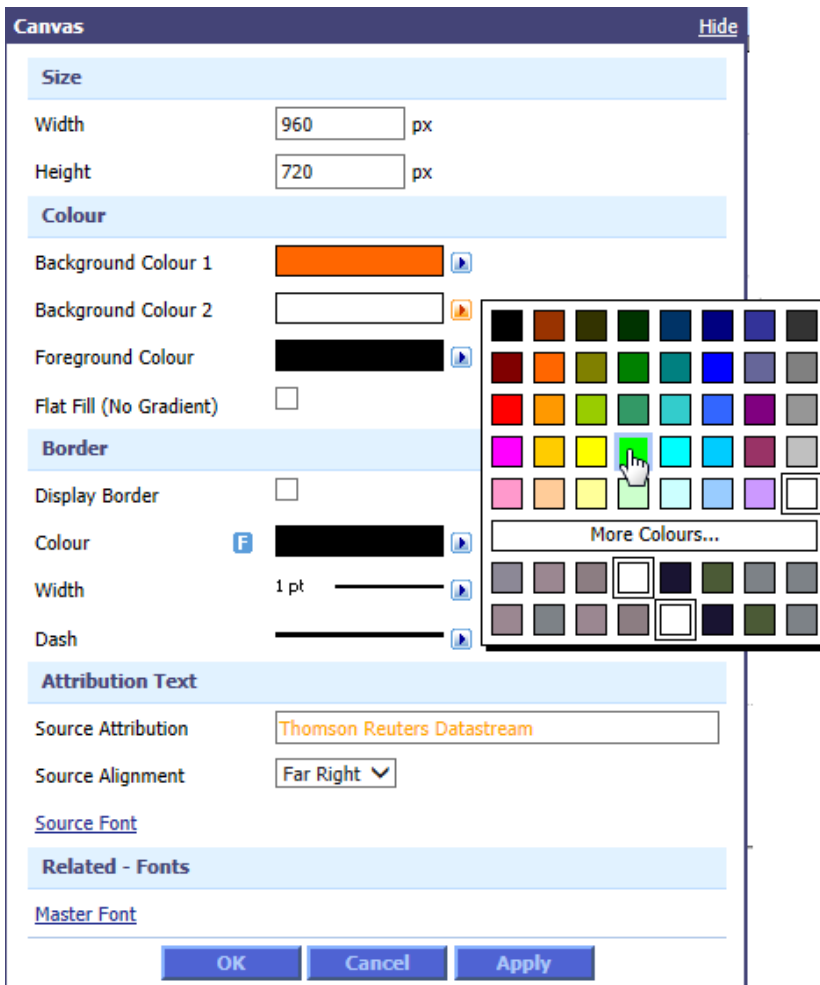


Chart background and foreground

Click the **Canvas Settings** link on the **Chart Settings** panel to set the **Background Colour** of the chart. If you have installed the SVG Viewer or you have Internet Explorer 9 you can click directly on the chart to do this.



The image shows a 'Canvas' settings dialog box with a 'Hide' button in the top right corner. The dialog is organized into several sections: 'Size', 'Colour', 'Border', 'Attribution Text', and 'Related - Fonts'. The 'Size' section has input fields for 'Width' (960 px) and 'Height' (720 px). The 'Colour' section includes 'Background Colour 1' (orange), 'Background Colour 2' (white), 'Foreground Colour' (black), and a 'Flat Fill (No Gradient)' checkbox. The 'Border' section has a 'Display Border' checkbox, 'Colour' (black), 'Width' (1 pt), and a 'Dash' dropdown. The 'Attribution Text' section has 'Source Attribution' (Thomson Reuters Datastream) and 'Source Alignment' (Far Right). The 'Related - Fonts' section has links for 'Source Font' and 'Master Font'. At the bottom are 'OK', 'Cancel', and 'Apply' buttons. A color palette is open over the 'Foreground Colour' field, showing a grid of colors with a hand cursor pointing to a light green color. A 'More Colours...' button is at the bottom of the palette.

Canvas [Hide](#)

Size

Width px

Height px

Colour

Background Colour 1

Background Colour 2

Foreground Colour

Flat Fill (No Gradient) ☐

Border

Display Border ☐

Colour

Width pt

Dash

Attribution Text

Source Attribution

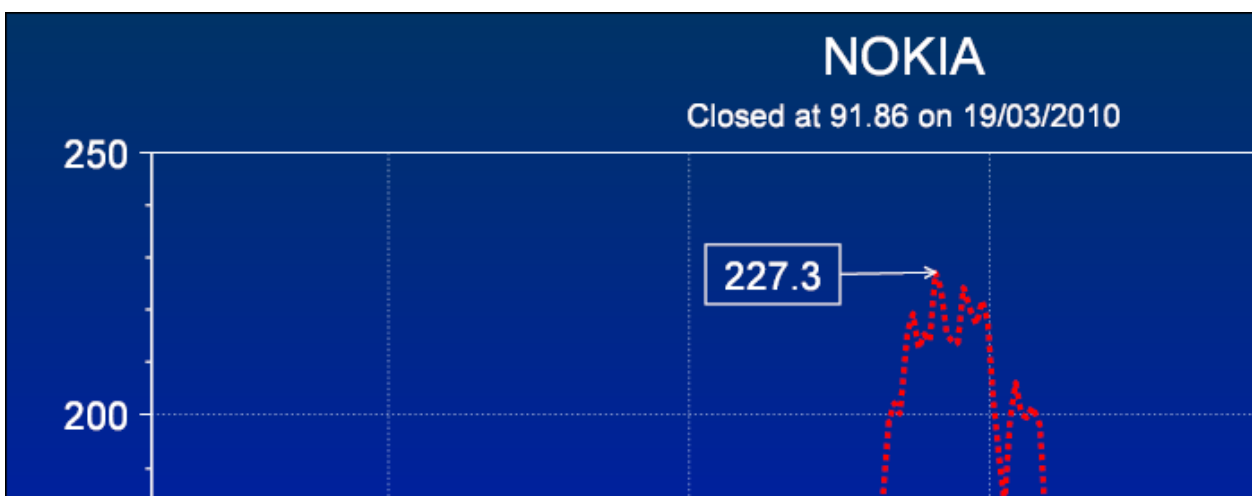
Source Alignment

[Source Font](#)

Related - Fonts

[Master Font](#)


Setting the **Foreground Colour** will change the colour of all fonts, axes, gridlines and annotations which you have not styled separately. So for example, if you have a dark background for your chart, you can set the foreground to a light colour so that the axes and any text will be more visible.

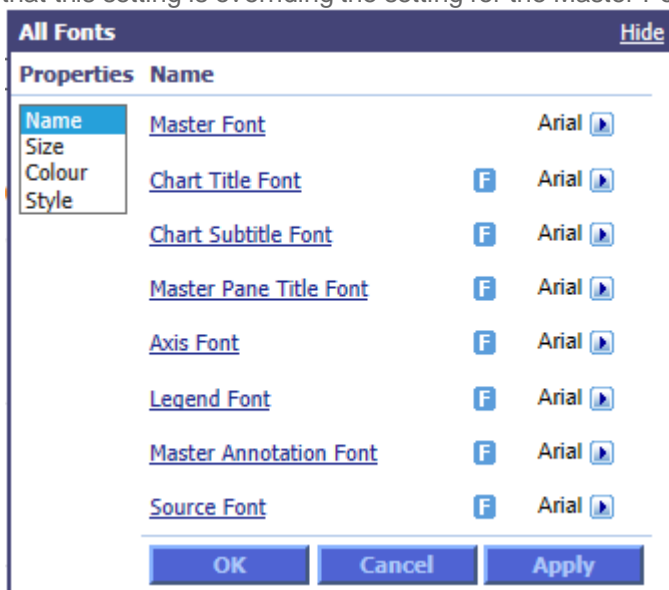


Fonts

Click the **Fonts** link on the **Chart Settings** panel to style your fonts. Alternatively, if you have the SVG Viewer installed or you have Internet Explorer 9 you can left click on any text element of the chart (title, legend, annotations and so on) to edit the text and style the font.

In the **All Fonts** editor you can edit the properties of the **Master Font** to set the properties of all the other fonts in a single click. For example, if you set the **Master Font** to italic style, all other fonts on your chart will also become italic.

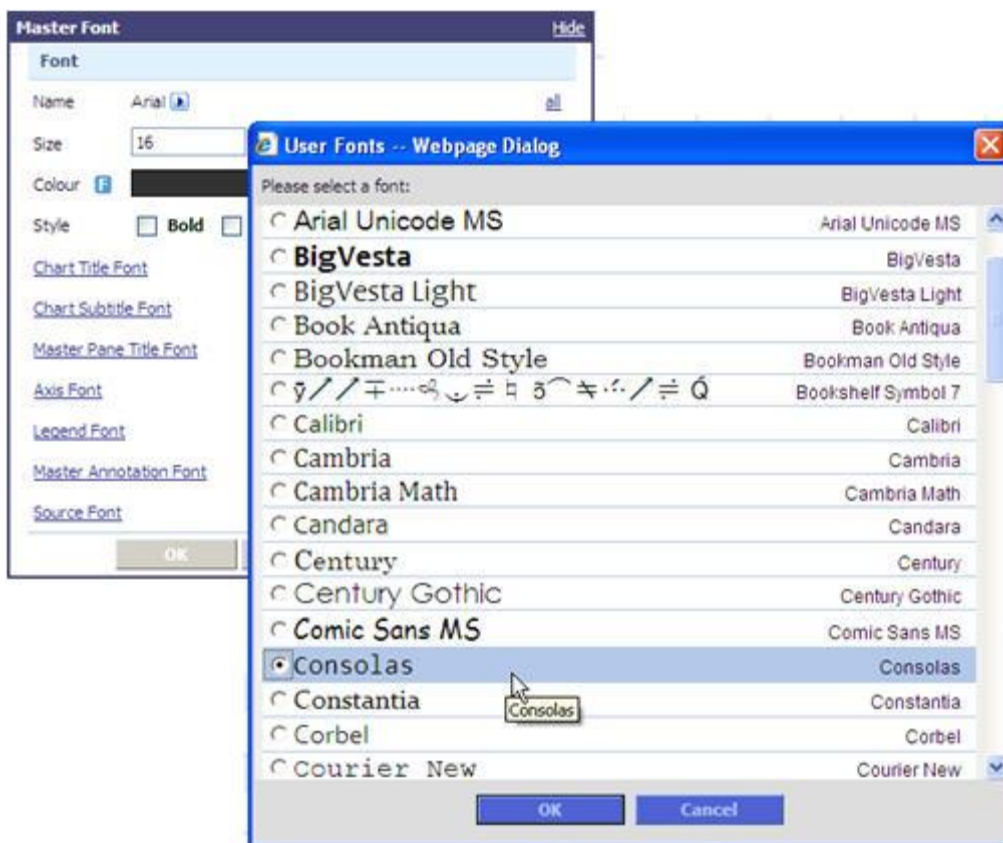
You can still style each font individually, in which case the editor will display the icon  to indicate that this setting is overriding the setting for the Master Font.



Access desktop fonts

A standard set of server fonts are offered. In addition you can click the User Fonts option to access any true type (.ttf) fonts stored in your Windows fonts folder, including any fonts proprietary to you, and use them in your charts both on screen and in exported charts. Microsoft open type (.otf) fonts can also be used.

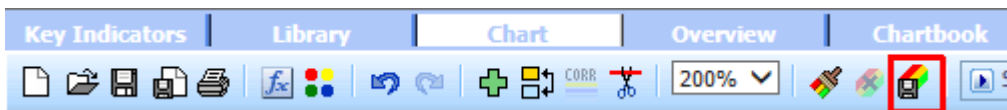
If exported charts in documents are subsequently refreshed on a machine which does not have the specified font installed, the refreshed chart will revert to the default font Arial. Charts which are shared as a URL can only use the standard set of server fonts and cannot display desktop fonts.



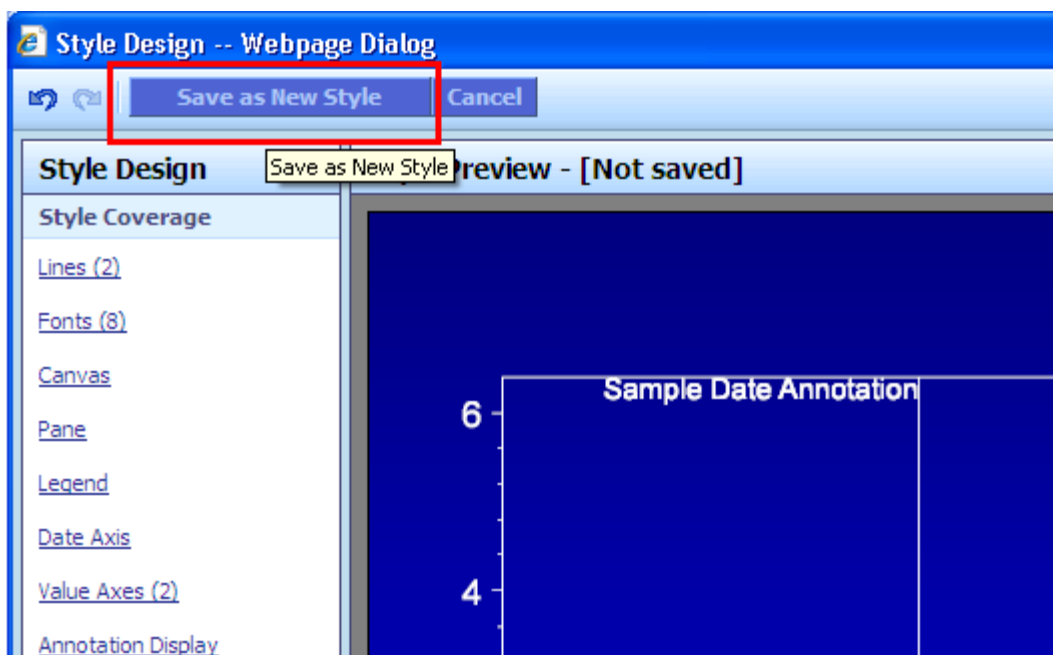
Note: This feature requires the add-in for version 2.6 (build 1869) or above.


Saved styles

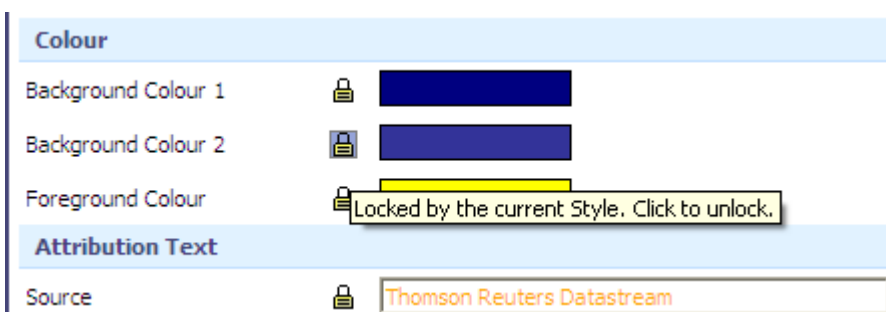
You can save the style settings on your chart as a user created style. Click the button on the toolbar to open the Style Design Window and specify any further style settings.



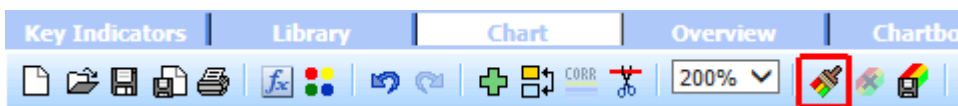
When you have achieved the look and feel you require, save the style using the **Save as New Style** button above the chart.



The saved style will be applied to your chart and the style settings will be locked. If you subsequently want to amend any of the style settings on the chart, click the padlock icon  to unlock the setting and detach the chart from the style.

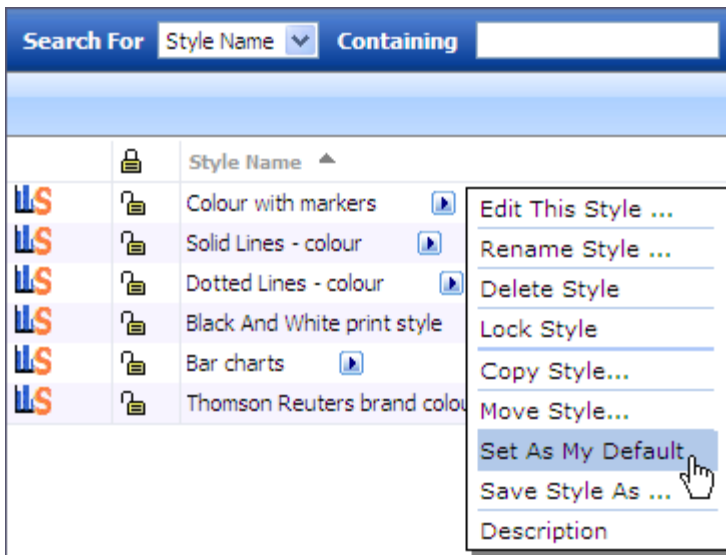


When you want to use the same style for another chart, click the **Apply Style** button on the toolbar and select the style from the picker.



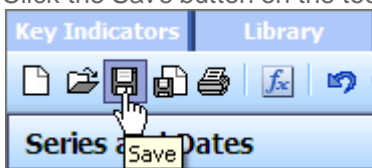
You can also apply saved styles to multiple charts in the Library. See [Managing and Retrieving Charts](#) below for more information on the Library.

If you want all the new charts you create to have your preferred style without having to apply it each time, you can select a style to be your default style in the Library.

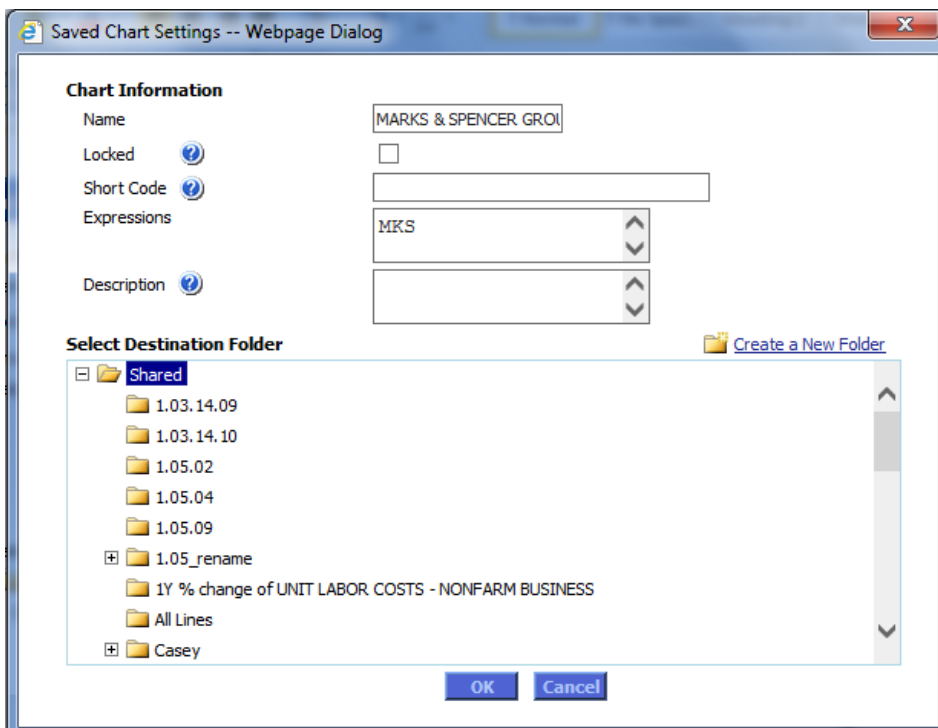



SAVING CHARTS

Click the Save button on the toolbar to save your chart in the Chart Library.



The Save dialog will appear.



Select a destination folder from the Shared or Private section in the Folder field or click the Create New Folder icon  and type in the new folder name. You cannot save charts directly into the Shared or Private sections, but must create a subfolder first.

Note: The Private section will be visible only if you have logged on using a child ID.

If you wish to lock your chart, click the **Locked** checkbox and click OK. Locked charts cannot be deleted, moved, renamed or edited by another user. For details of how locking works, see [Locking charts](#) below.

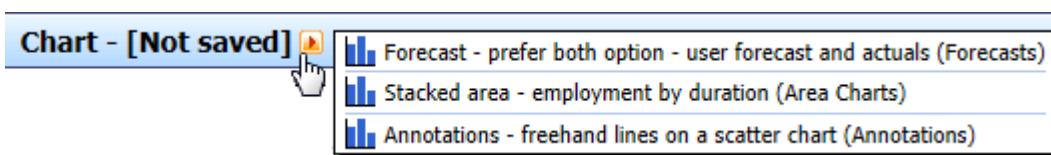
Add a short code for quick retrieval later and a description if required.

Your chart will now appear in the Chart Library and the saved name will appear at the top of the chart.

RETRIEVING AND MANAGING CHARTS

Retrieving charts

You can retrieve recently used charts using the **Recent Charts** flyout menu to the right of the chart name. Up to 10 recently used charts will be displayed.

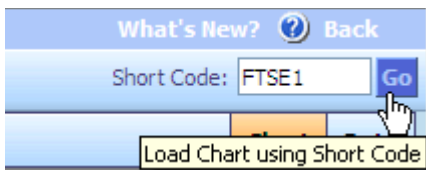


Click on the required chart name to load it to the Chart page.

To retrieve other saved charts, you can use the Open Chart button on the top left of the toolbar or click on the Library tab to review all the charts, styles and templates which have been saved on your logon ID. For more on templates see [Using charts with a list](#).

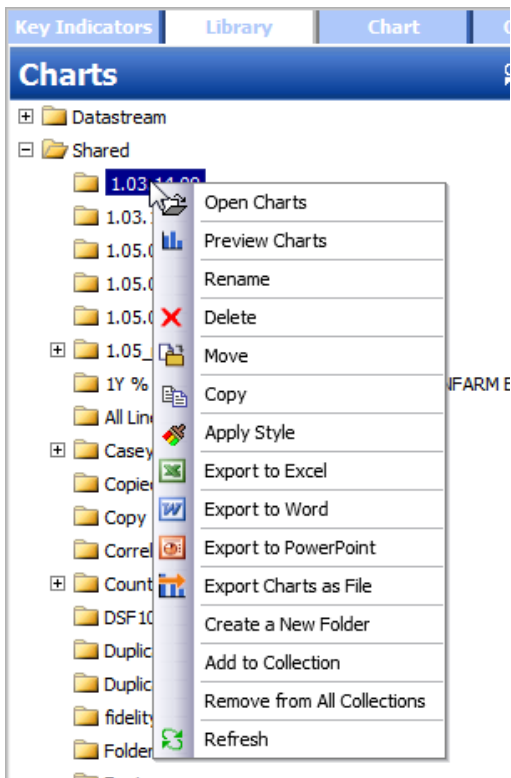


Alternatively, at the top right of the Chart page you can type in the short code you specified when you saved the chart.

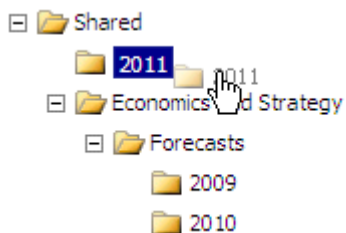


Organising charts

Charts can be saved in folders or subfolders in the Library. You can create a structured hierarchy of folders by right clicking on any folder to create a subfolder below it:



Drag and drop folders to a new position in the hierarchy.



You can also drag and drop charts to a new folder.

Datastream, Shared and Private folders

The top level of the chart hierarchy is divided into three sections: Datastream, Shared and Private (only child ID users see the Private section).



Datastream Section

This section contains a gallery of sample charts, which are read-only. These can be copied to the Shared or Private nodes for editing or opened, edited and saved as a new chart.

Shared section

If you are using a parent ID, the Shared section will show all charts created by you and by any other users of that parent ID.

If you are using a child ID, it will show any charts you have created and chosen to save in this section rather than the Private section (see below). It will also show any charts saved here by other child IDs who are related to you through a common parent ID.

When you save a chart in the Shared section of the hierarchy, you become the Owner of that chart and your logon ID is displayed in the Owner ID column.

Charts in the Shared section can only be locked or unlocked by their Owner. Unlocked charts can be renamed, re-styled, copied or moved by users other than the Owner. Once you perform any modifications on another user's unlocked chart, you become the Owner of that chart.

Private section

You can access the Private section only when you have logged on as an individual with your own specific Child ID. You can save charts in this part of the hierarchy and those saved charts will not be seen by any other user.

You can drag and drop the charts in and out of this part of the hierarchy. Charts in the Private section need not be locked as only you can see them.

Chart properties


The table on the right shows the properties of the chart, such as the name, date last amended and so on. You can click on any column header to sort the table.

The **Owner ID** column shows the logon ID of the user who created the chart or who last saved a change to it. Only the owner of a chart can lock it to be read-only.

Locking charts

Locking a chart makes you the Owner of the chart and makes the chart read-only for other users such as other child IDs.

- Locked charts cannot be deleted, renamed, moved or overwritten by any user other than the Owner.
- Only the Owner can apply a style to or remove a style from a locked chart.
- Other users can copy a locked chart or save it as a new chart with a different name.

To lock a chart in the Library click on the padlock icon  next to the chart name. You can also lock charts when you first save them.

Note: If another user logs on with the same Logon ID as you (for example, using a shared parent ID), they will have equal ownership rights and will also be able to lock or unlock the chart.

Managing charts

You can rename, delete, move, copy, export to Excel/Word/PowerPoint, and apply a style to all of your own charts or to other users' unlocked charts in the Shared folders. Use the check boxes to the right of the charts to select the charts.

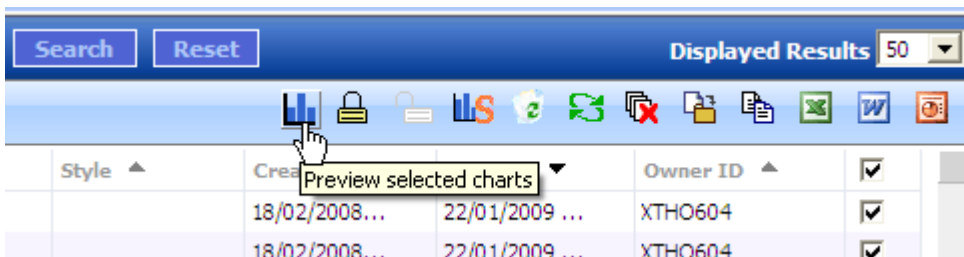
To select all the charts in a folder, use the check box at the top right of the page or right click on the folder name. The right click menu also allows you to select all the charts in any subfolders of the folder you have highlighted.

If a folder or any of its subfolders contains any charts locked by another user, you cannot delete, rename, move or apply a style to the whole folder.

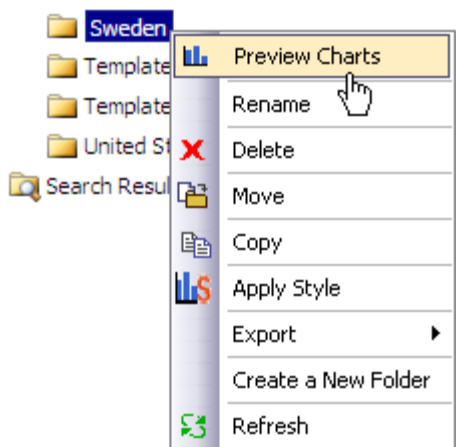
Previewing charts

To preview the charts in your Library click the Preview icon  to the left of each chart name.

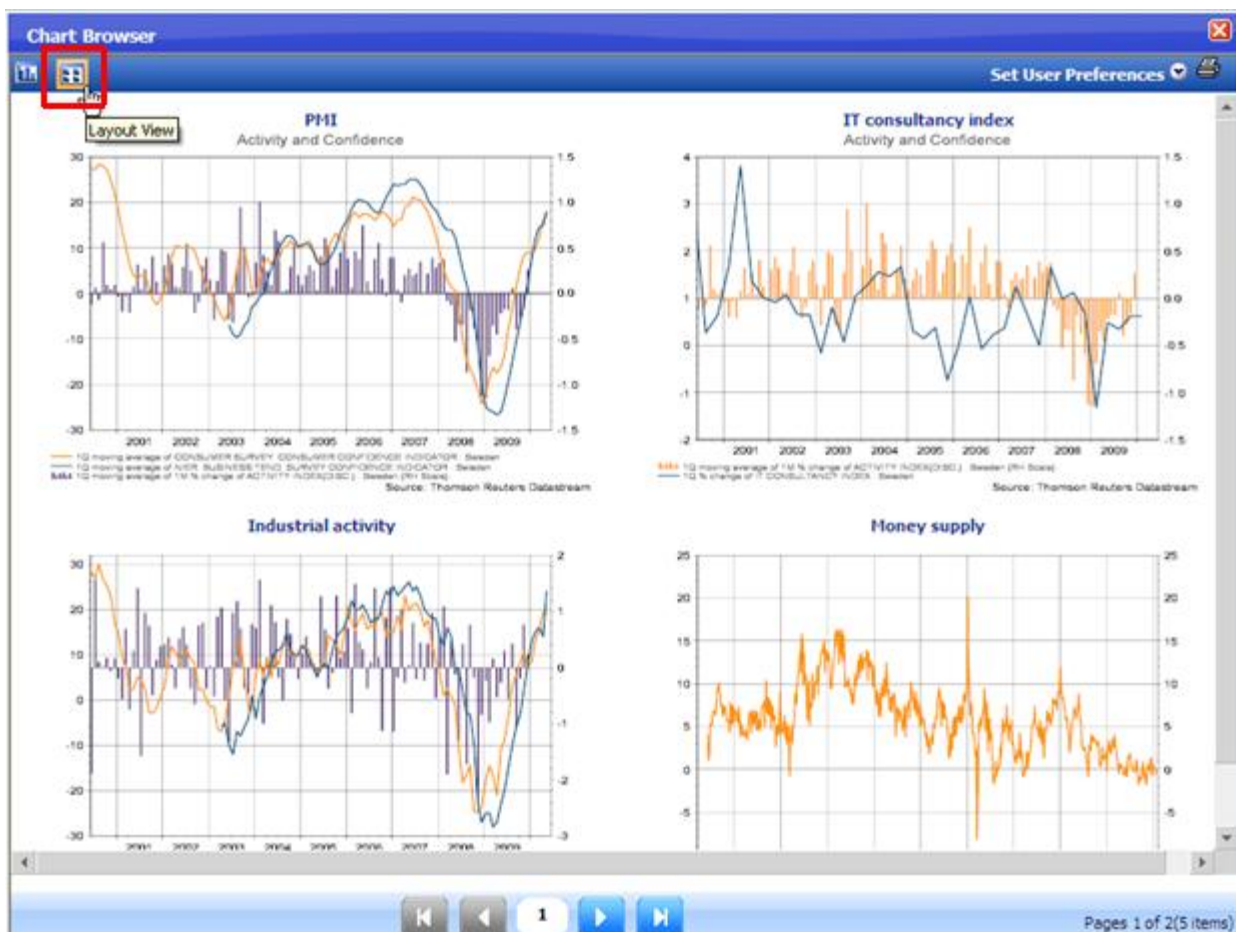
To preview multiple charts, select the charts using the check boxes and click the Preview button on the toolbar.



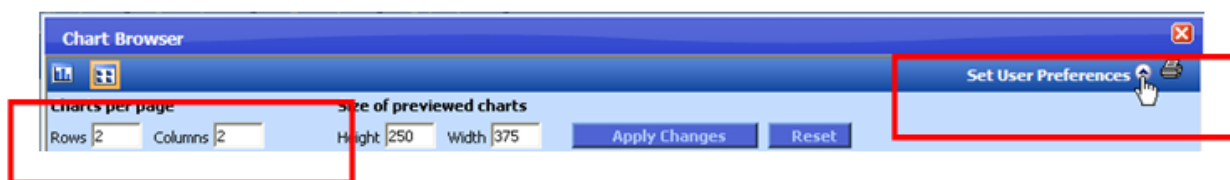
Alternatively, right click on a folder name and select the **Preview Charts** option.



You can page through the selected charts one at a time or show multiple charts on screen at once by selecting the Layout View.



To customise this layout view, click the **Set User Preferences** option and enter the required settings. For example to see more charts per page and scroll up and down them, you could increase the number of rows displayed,



The layout can also be printed.

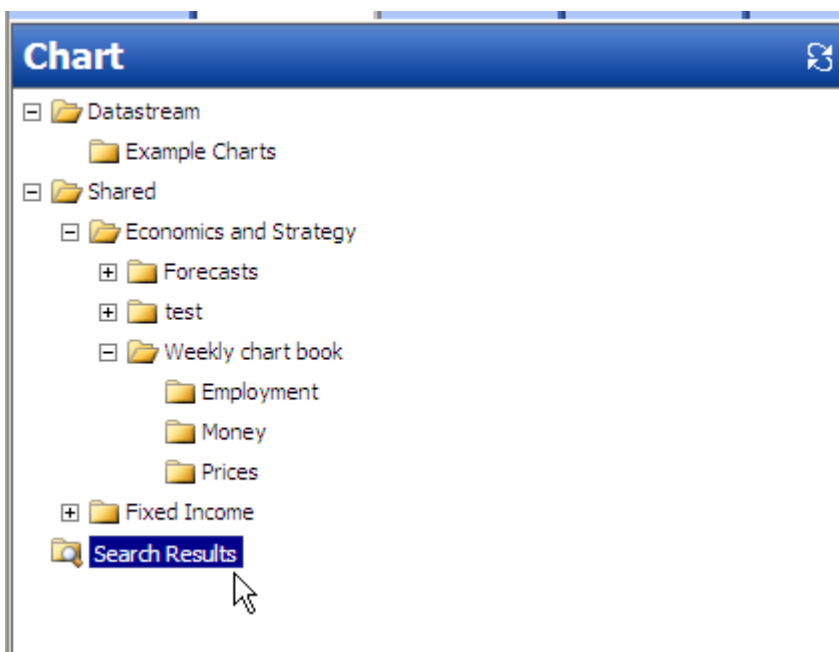
To open (edit) a chart, just click on it and it will open in the Chart page.

Searching for charts

The Search feature allows you to search across all charts in the Library, or narrow the Search down to just the Datastream, Shared or Private nodes of the Library. Set the criteria for your search using the controls at the top of the chart list and below the toolbar.

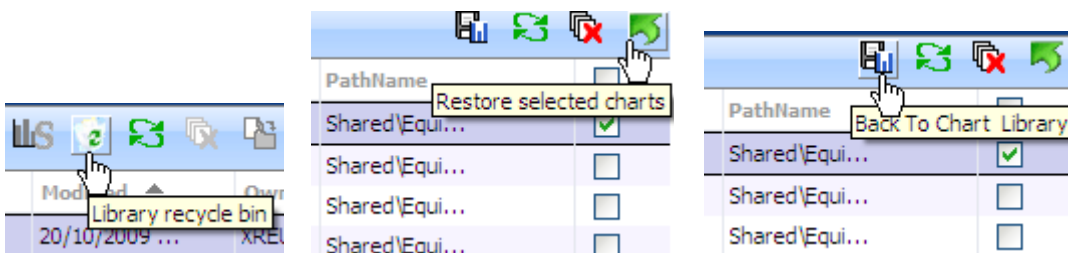


The Search results are shown in a separate folder at the bottom of the folder hierarchy and the path name is displayed on the right.



Recycle Bin


Deleted charts, styles and templates are all stored in the Recycle Bin and can be restored to their original position in the hierarchy. It is also possible to delete content from the Recycle Bin permanently, after which it cannot be restored.

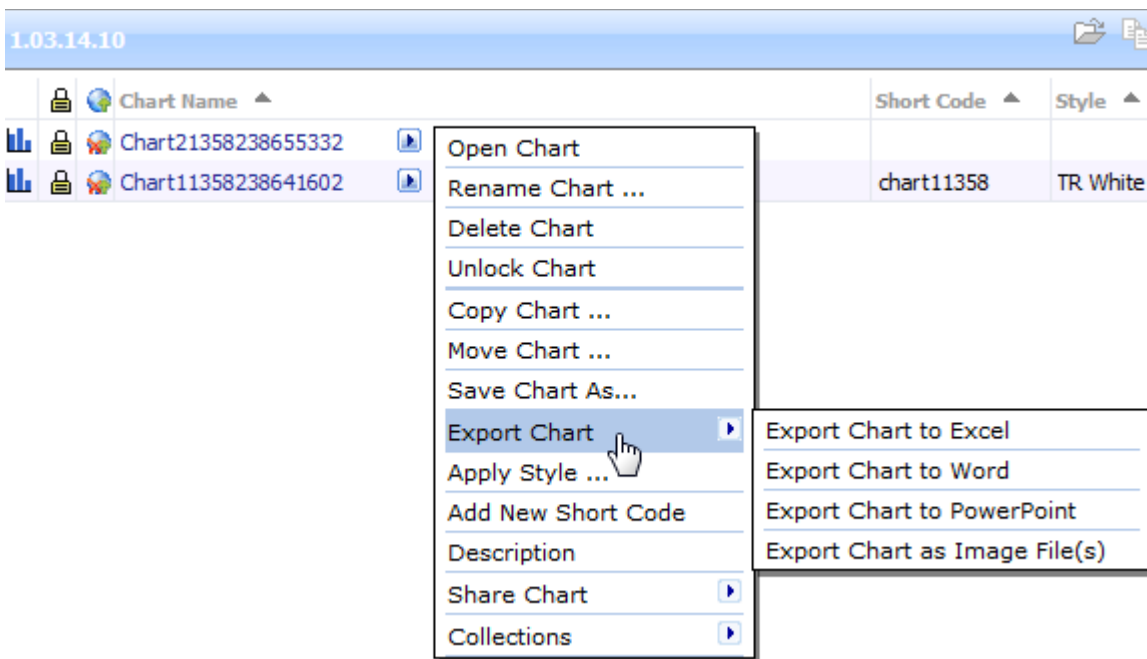


EXPORTING AND PUBLISHING CHARTS

Exporting to Microsoft Office

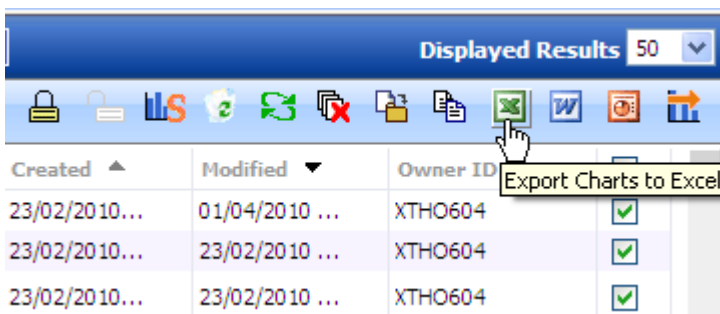
Saved charts can be exported to Microsoft Excel, Word or PowerPoint as refreshable objects.

In the Library hover your cursor over the flyout  to the right of a single chart name and select Export Chart > Export Chart to Excel (or Word or PowerPoint).



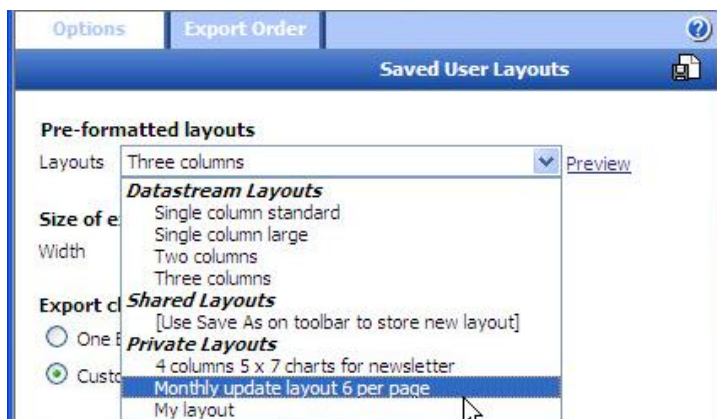
OR

Select multiple charts by clicking on the check boxes to the right of the charts and click the Excel, Word or PowerPoint option from the toolbar as required.



The Export Settings dialog will pop up. Select the required settings and click the Export Chart button.

Export Layouts

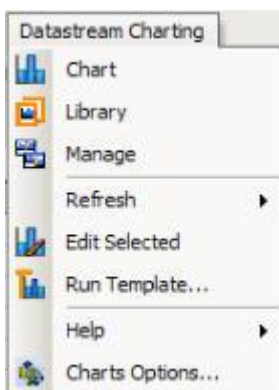


Components required for using Datastream Charting in Office

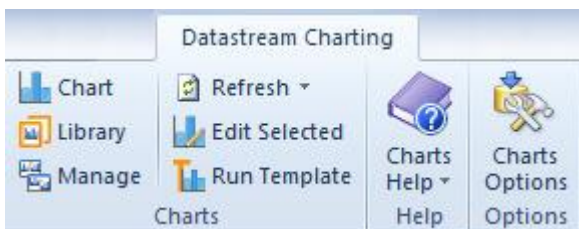
To refresh and edit your charts from Microsoft applications you will need to install the Datastream Charting for Office add-ins. These are available on the [Customer Zone](#).

Refer to the installation notes to ensure a smooth install.

Once you have the add-ins installed you will see a menu in your Office ribbon menu (2007) or on your Office toolbar (2003):



In Office 2007 it may look like this:



Use the menu options to refresh the charts or set a **Schedule for Refresh**, or select the **Manage** for further options such as Edit or Apply Style.

There are also shortcuts to go to the different pages of **Datastream Charting** as shown above.

Refreshing charts received from another user

Documents, spreadsheets and presentations containing exported charts can be sent to other users.

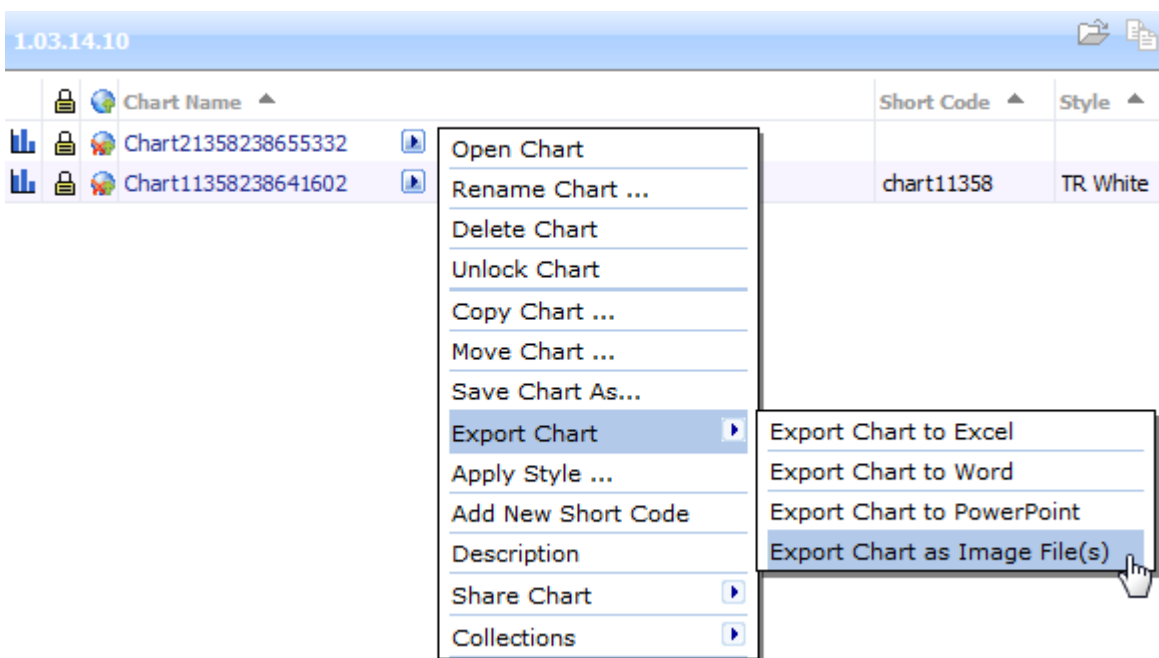
If the recipient is not a Datastream Charting subscriber (s)he will be able to see each chart as an image in the document, but will not be able to refresh it.

If the recipient is a Datastream Charting subscriber but has a different Datastream ID from the author of the chart (s)he will probably be able to refresh the chart using the add-in, but a warning message will be displayed to advise that the recipient may not be able to access all of the content in the chart. This is because different Datastream IDs may have different data permissions, or the chart may contain user-created time series or expressions which are specific to the author's Datastream ID.

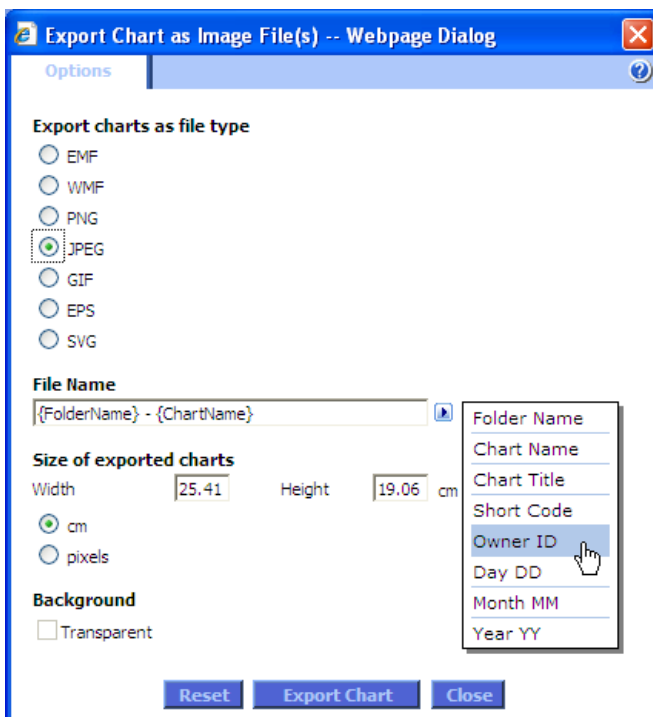
If the recipient is a Datastream Charting subscriber and has the same Datastream ID as the author of the chart (s)he will be able to refresh the chart using the Datastream Charting add-in.

Exporting as an image file

Saved charts can be exported to a local folder as an image file in a number of formats. Select the Export Chart as Image File(s) option from the chart flyout or the toolbar.

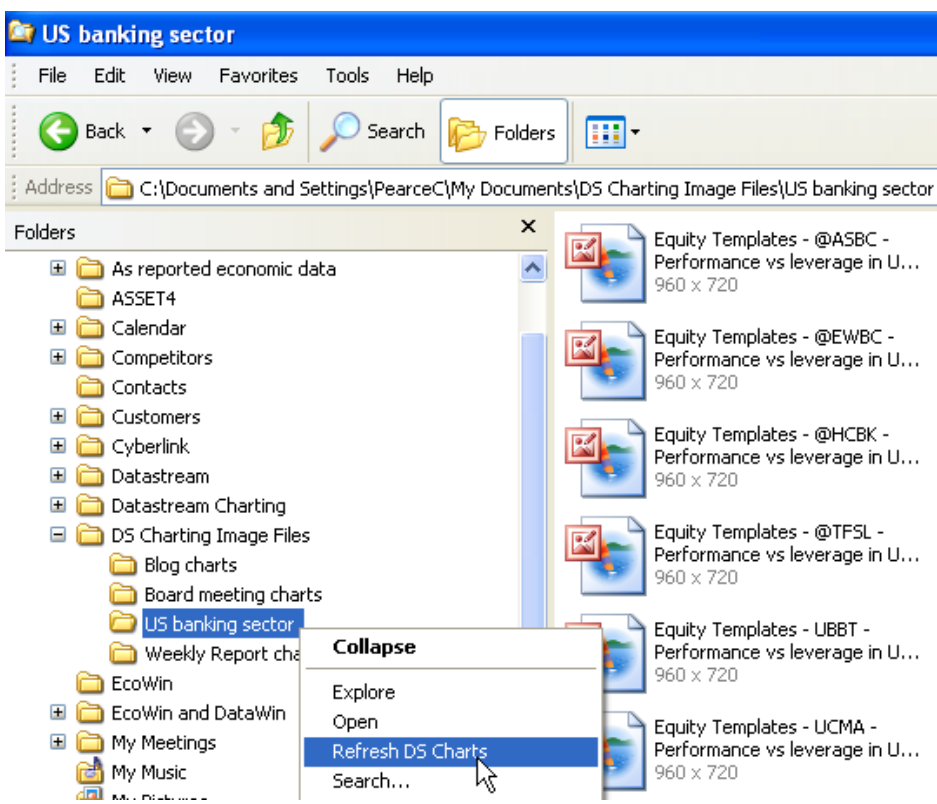


Select the required format and destination folder and select fields to format the file name as required.



You can embed links to the locally saved charts in your desktop publishing package.

To refresh the charts, right click on the local folder name in your Windows directory and select Refresh DS Charts.



Sharing a chart using the URL

You can copy a URL of your chart to the clipboard and publish it (via email, document, instant message, Twitter and so on) to your audience. The recipient can click on the URL and see an up-to-date image of your chart, or open it in a browser window. The URL maintains a live link to your chart and reflects any updates to the data or edits you make, until you decide to stop sharing and disable the URL.

Live charts can also be embedded directly in blogs or other html pages.

To copy the chart URL to the clipboard click the button on the toolbar then paste the URL as required.

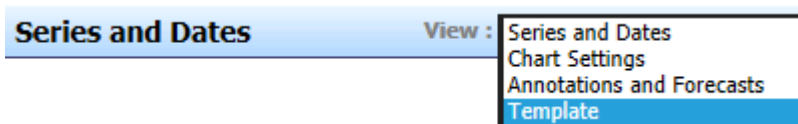


You can also use the preferences to copy an Edit URL which allows any Datastream user to open your chart on their Datastream ID, edit it as required and save it in their own chart library.

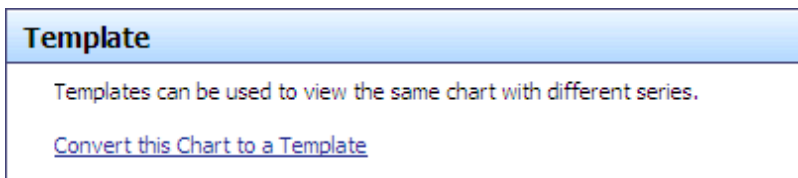
USING CHARTS WITH A LIST

The same chart can be used with a list of series by converting it to a Template. Create a model of the chart you require using an example series and any functions, currencies or datatypes. Set the date range, format the chart and apply any required styling.

Once you are happy with the chart, click the **Template** panel. Access this option from the dropdown at the top of the series panel.



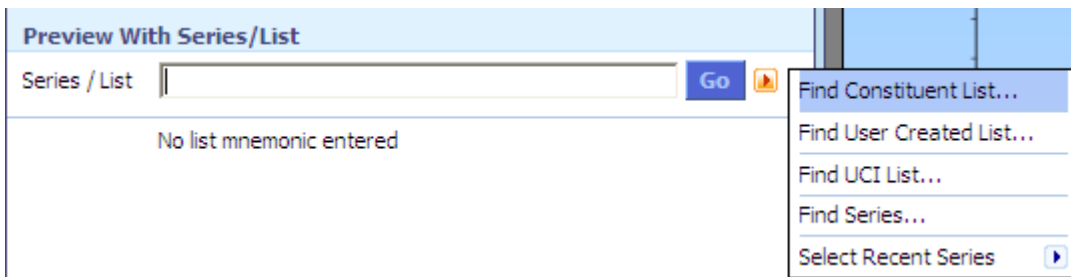
Click the **Convert this Chart to a Template** link.



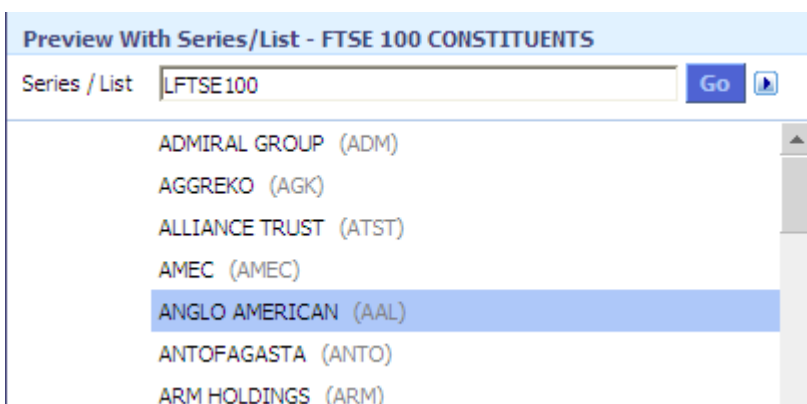
Check the **Variable** radio button for the series you want to replace with the constituents of your list. All instances of this series on the chart will be replaced. The **Used In** field indicates which lines reference this series.

Template		
Substitution Selection		
Variable	Series Name	Used In
<input checked="" type="radio"/>	MARTEK BIOSCIENCES (Preview)	Line 1, 2, 3, 3, 4, 4

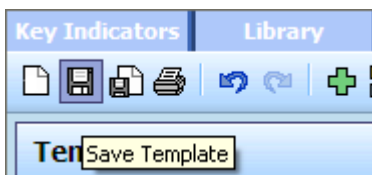
Now select the required list either by typing in the list mnemonic or using Navigator to find the list. You can use Datastream constituent lists, UCI lists or user created L# lists. You can also view the template with a single series rather than a list; just type in the series mnemonic or select from Navigator using the **Find Series** link.



Click through the list constituents to see each chart.



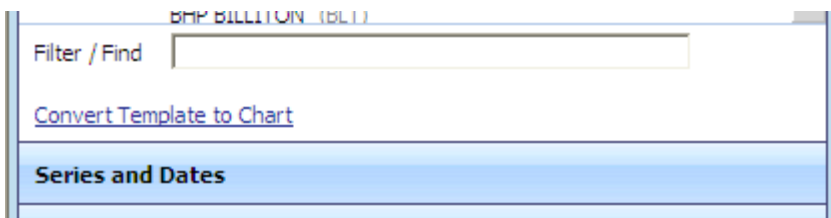
If you want to export the charts to a Microsoft Office application, save the template first using the **Save** button on the toolbar, then click the export buttons on the toolbar as usual.



Saved templates are stored in the Library and can be organized, managed and retrieved in the same way as charts. For more on using the Library see [Managing and retrieving charts](#) above.

Once the charts have been exported to Excel, Word or PowerPoint they can be refreshed from there using the Datastream Charting for Office add-ins. The template can also be run again from the Office document. This will replace the exported charts with a new set of charts based on the most recent list constituents.

If you want to save a particular constituent of the list and perhaps make changes to that chart (e.g. add annotations) which do not apply to all the other charts in the list, you can convert the template back to a chart. Display the chart you require by clicking on the series name in the list, then click the **Convert Template to Chart** link at the bottom of the list.

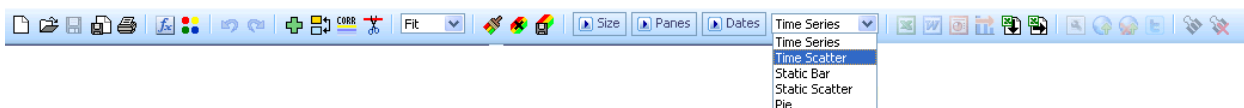


OTHER CHART TYPES

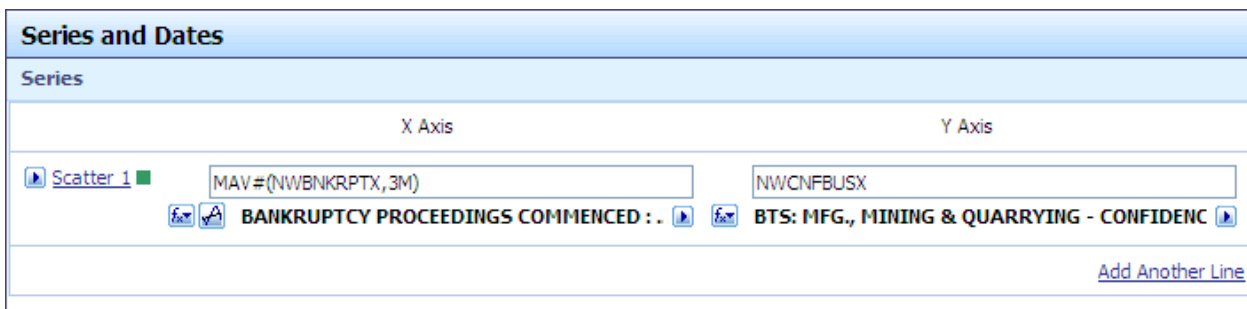
Time scatter charts

A time scatter chart presents pairs of input time series as points in a coordinate (X, Y) system created by the horizontal (X) and vertical (Y) axes, for example inflation on the horizontal (X) axis and unemployment on the vertical (Y) axis. Each point on the scatter chart corresponds to the value of the two time series on a particular date.

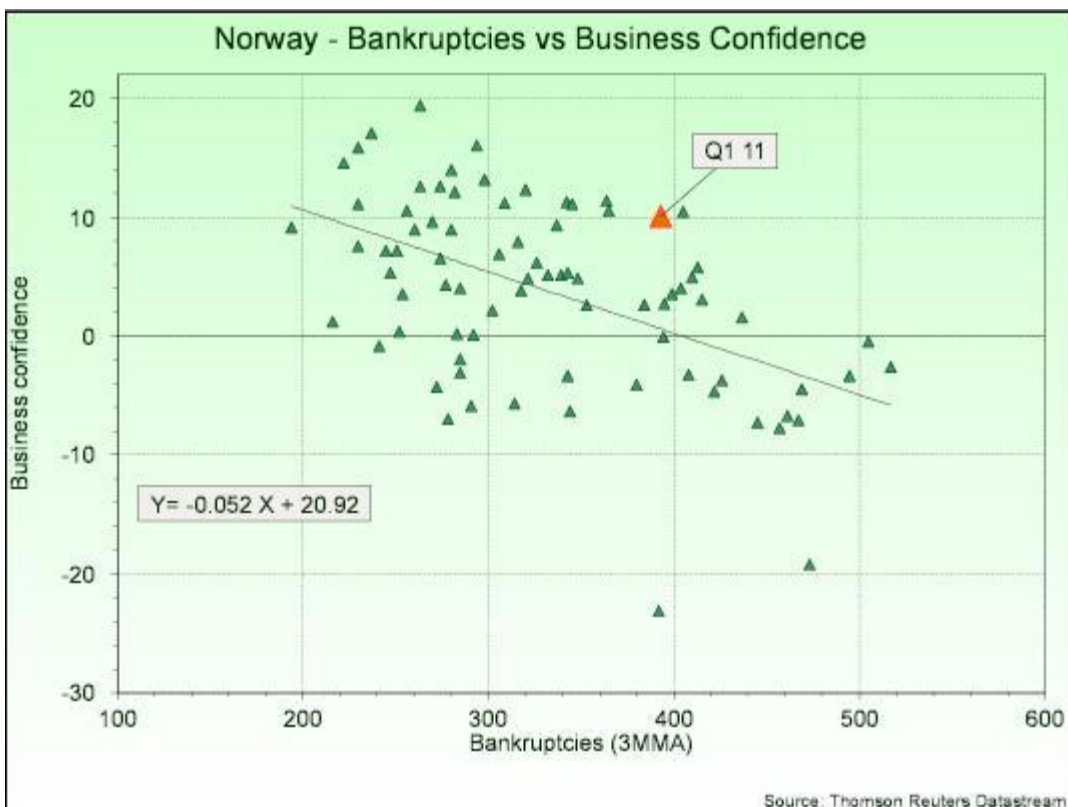
To display series or expressions on a time scatter chart, select the **Time Scatter** chart layout from the drop-down menu on the toolbar.



Enter the required series or expressions for X and Y and set the date range.



You can draw a line of best fit through the points if required. For more details on using and formatting scatter charts, please refer to the online help files.



Static bar charts

Static charts present a group of expressions or series on a particular date or dates. For example, if you want to chart the unemployment rate for each of the countries in the Euro zone for the month of December 2010 or the 2009 total sales for all Japanese car manufacturers, you can present these data on a static bar chart.

Static charts are composed of entities, groups and date points.

To create a static chart, select the **Static Bar** chart layout from the drop-down menu on the toolbar.

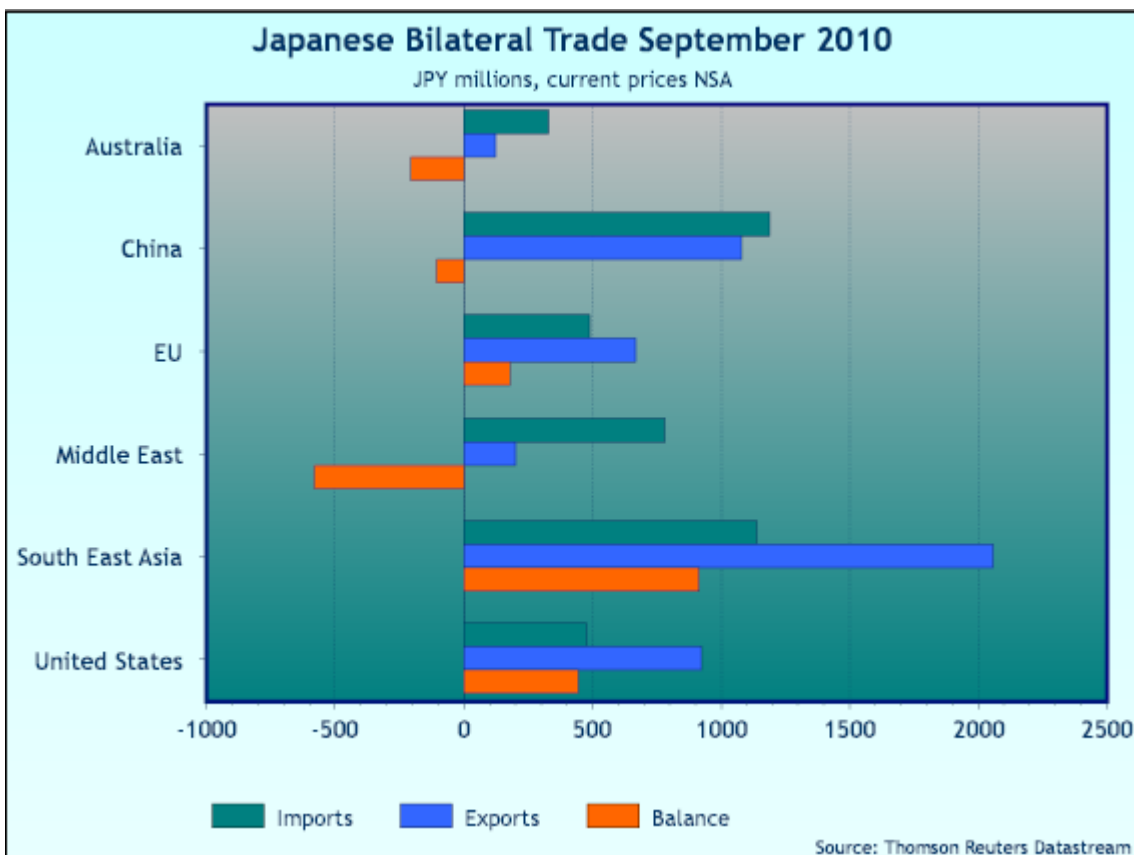


Enter the mnemonics or expressions as required.

The date point for the chart will default to LATEST which is the date of the latest data available among the selected series. If you are using macro-economic data, it is possible that some series on the chart may be more up to date than others and as LATEST will draw the chart on the latest date for these up-to-date series, any series which do not yet have values for this date will not display. Use an older date point or the COMPARABLE setting to retrieve data for all series.

If required, click the **Add Another Group** link to add another group of series. Alternatively, you can add further date points by clicking the **Add Another Date** link.

Options are available to label the bars with their values, also to sort the bars. Bars can be displayed vertically or horizontally. Please refer to the online help for more details on working with static bar charts

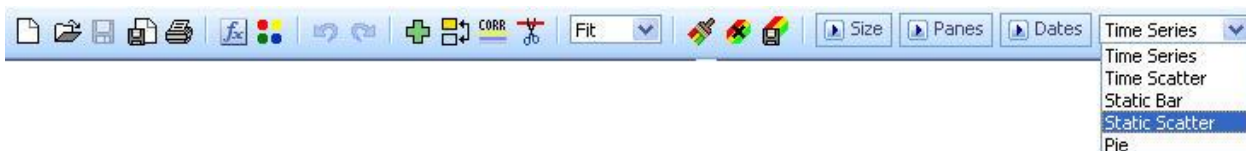


Static scatter charts

A static scatter chart enables cross-sectional analysis at one point in time of a list or group of entities (sectors, companies, markets, bonds and so on). Further dates can be added to compare two or more snapshots of the same entities.

The values for each entity are used to draw points in a coordinate (X, Y) system created by the horizontal (X) and vertical (Y) axes, for example risk on the horizontal (X) axis and return on the vertical (Y) axis. Each point on the scatter chart corresponds to a different entity (company, market, bond and so on).

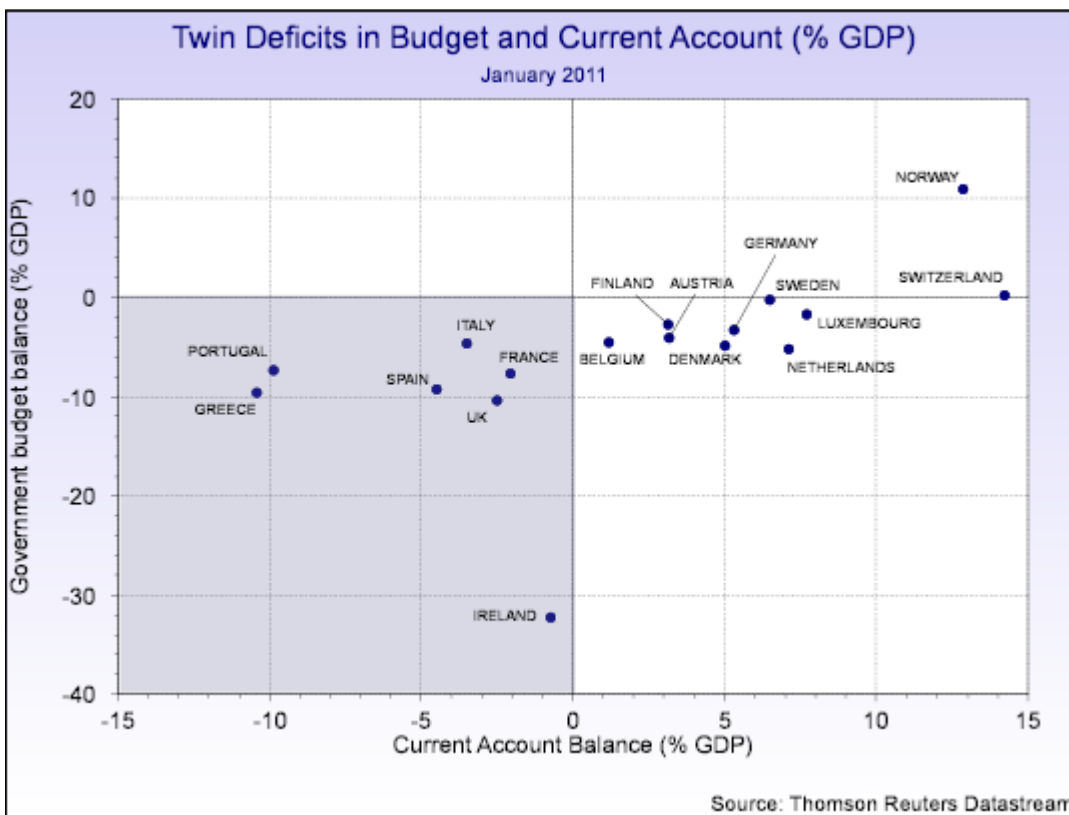
To create a static scatter chart, select the **Static Scatter** chart layout from the drop-down menu on the toolbar.



In the Series area select the series or list you wish to display for X and Y. You can type multiple codes into the text boxes by separating them with a comma.

Then in the Expression area select the functions, datatypes and currencies required for each axis. Lastly select the required date point.

You can annotate and style individual points on the chart and draw a line of best fit through the points. Please refer to the online help for more details on working with static scatter charts.



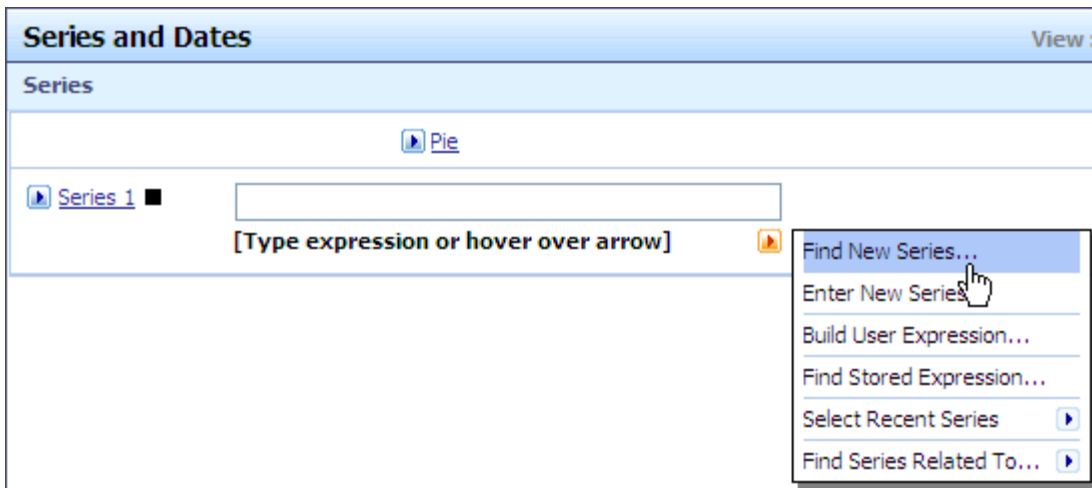
Pie charts

A pie chart enables cross-sectional analysis at one point in time of an entity broken down into its component parts, where the size of each segment shows the relative value of the component. A second date can be added to compare two snapshots of the same components.

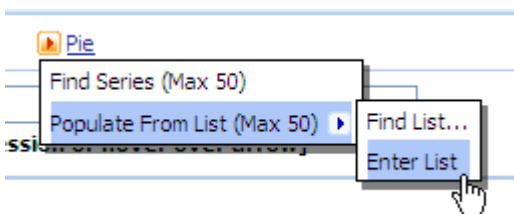
To create a pie chart, select the **Pie** chart layout from the drop-down menu on the toolbar.



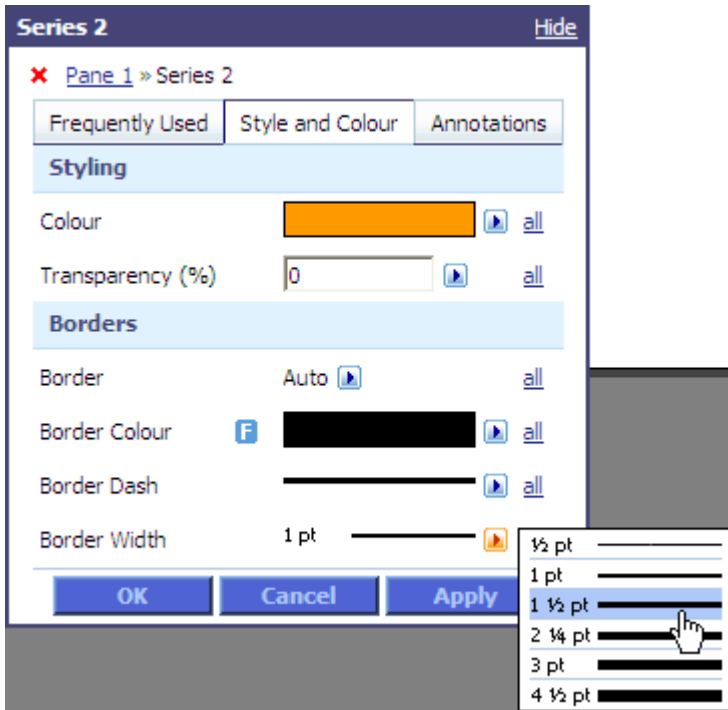
Add series individually:



Alternatively, select multiple series from Navigator or add a list:

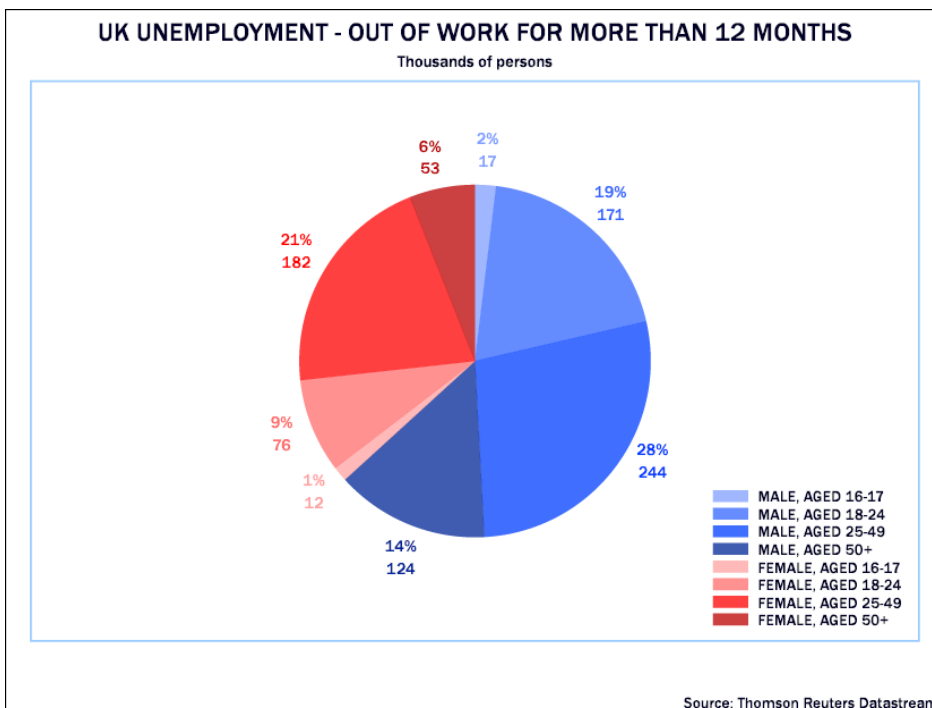


Set the styling for each series or apply a saved style:



Label the segments with Text from your legend, % Values and/or Actual Values:

Note: this setting will apply to all segments.



Collections

Collections enable you to structure your Library so that a single chart can be referenced from multiple locations, without the overhead of maintaining multiple copies of the chart in separate folders.

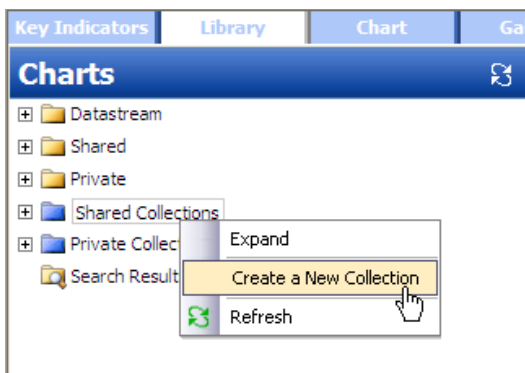
Collections are essentially a way of adding multiple tags to a chart so that it can be classified in different ways according to need. You can save your Master Chart in a folder in the Library as usual, then define as many Collections as you need and add the chart to each Collection. Any changes you make to the Master Chart will automatically appear in the Collections as well.

If you share a Library with colleagues, Collections can be a useful tool for making your charts available to other users of your ID without the need for them to access your original folders.

You can set up Shared Collections which will be accessible to all users of your Shared Chart Library, or if you have a child ID you can create Private Collections which only you can access.

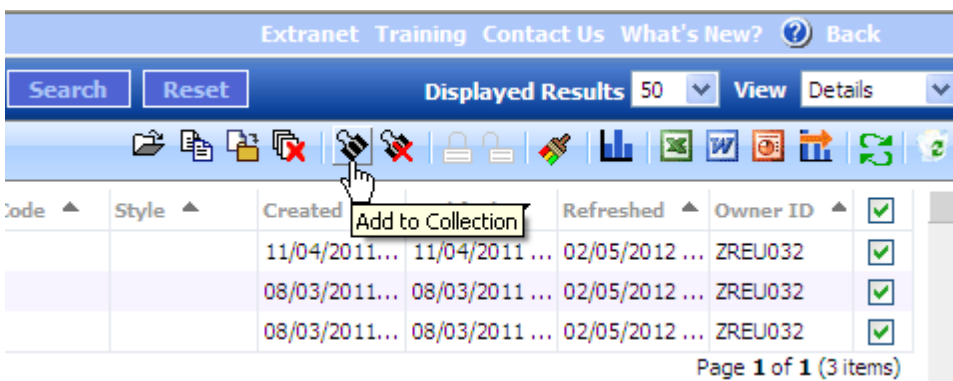
Setting up Collections

To create a new collection, right click on the Collections folder in the Library.

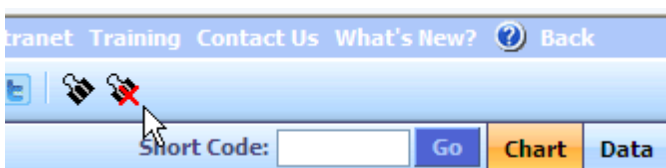


You can create multiple levels of Collections.

Then add charts to your Collections using the checkboxes and the clip icon on the toolbar.



Remove charts from Collections using the same flyout menu or the Remove from Collection icon on the toolbar in the Library. You can also do this from the Chart page:



Regression analysis

Regression analysis estimates the extent to which one time series (the dependent variable) is influenced by other time series (the independent or 'explanatory' variables) and is a useful tool for predicting and forecasting.

A simple regression uses a single explanatory variable X to explain the dependent variable Y , for example to evaluate to what extent disposable income influences consumer spending.

Multiple regressions use multiple explanatory variables (X_1 , X_2 , X_3) to explain the dependent variable. So in reality, consumer spending will be driven by a number of different factors such as disposable income, inflation, interest rates, consumer confidence and so on.

Use the regression builder from the toolbar to create a multiple regression model with up to 10 explanatory variables, set the sample range for the model and then chart the output to review the predicted values.



Regression Picker | **Regression Builder**

Regression - P0002 Regression ID: **Go**

Display Name **Use Regression**

Dependent Variable

	Start Date	End Date	Frequency
<input type="text" value="PCH#(USCNPER.D, 1Y)"/> PERSONAL CONSUMPTION EXPENDITURES (.	01/04/1951	01/10/2012	Quarterly

Explanatory Variables

	Start Date	End Date	Frequency
X1 <input type="text" value="PCH#(USPERDISB, 1Y)"/> DISPOSABLE PERSONAL INCOME (AR) : Unit.	01/01/1960	01/12/2012	Monthly
X2 <input type="text" value="PCH#(USCONPRCF, 1Y)"/> CPI - ALL URBAN SAMPLE: ALL ITEMS : Unit.	01/02/1951	01/12/2012	Monthly
X3 <input type="text" value="USPRATE.X"/> FEDERAL FUNDS TARGET RATE (EP) : United St.	31/01/1971	28/02/2013	Monthly

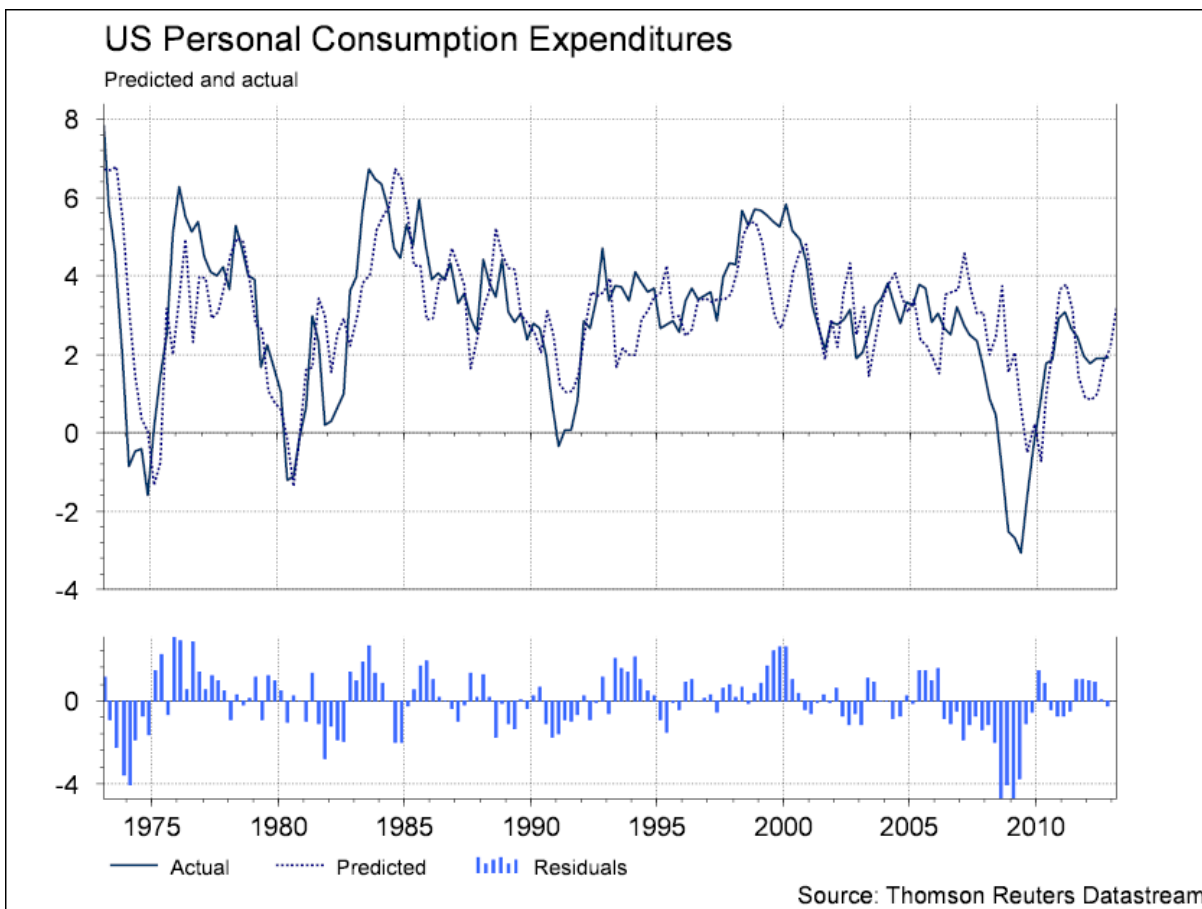
Estimation Sample

Max Date Range & Frequency **Use Sample** May 2001 Jan 2013 Monthly

Frequency

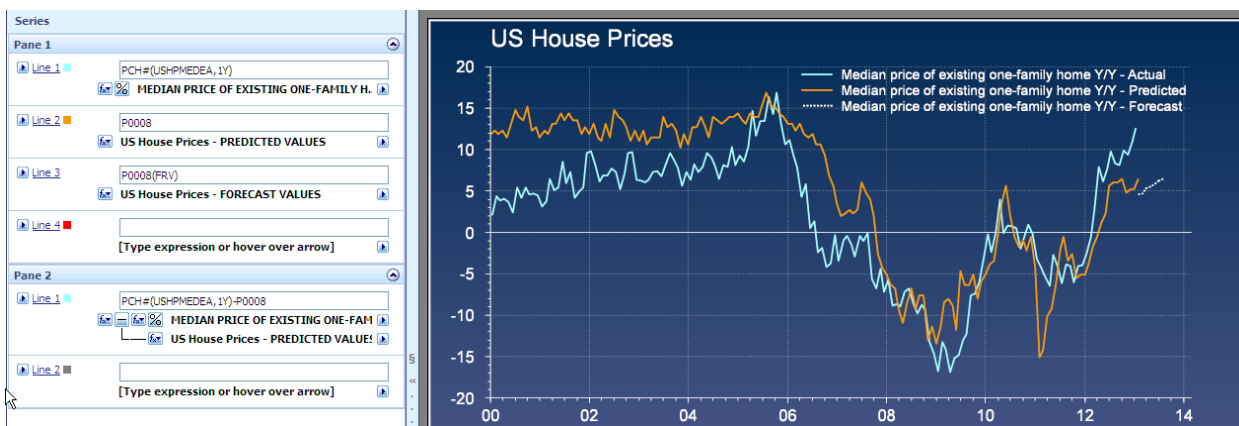
Start Date

End Date ☒ **LATEST**

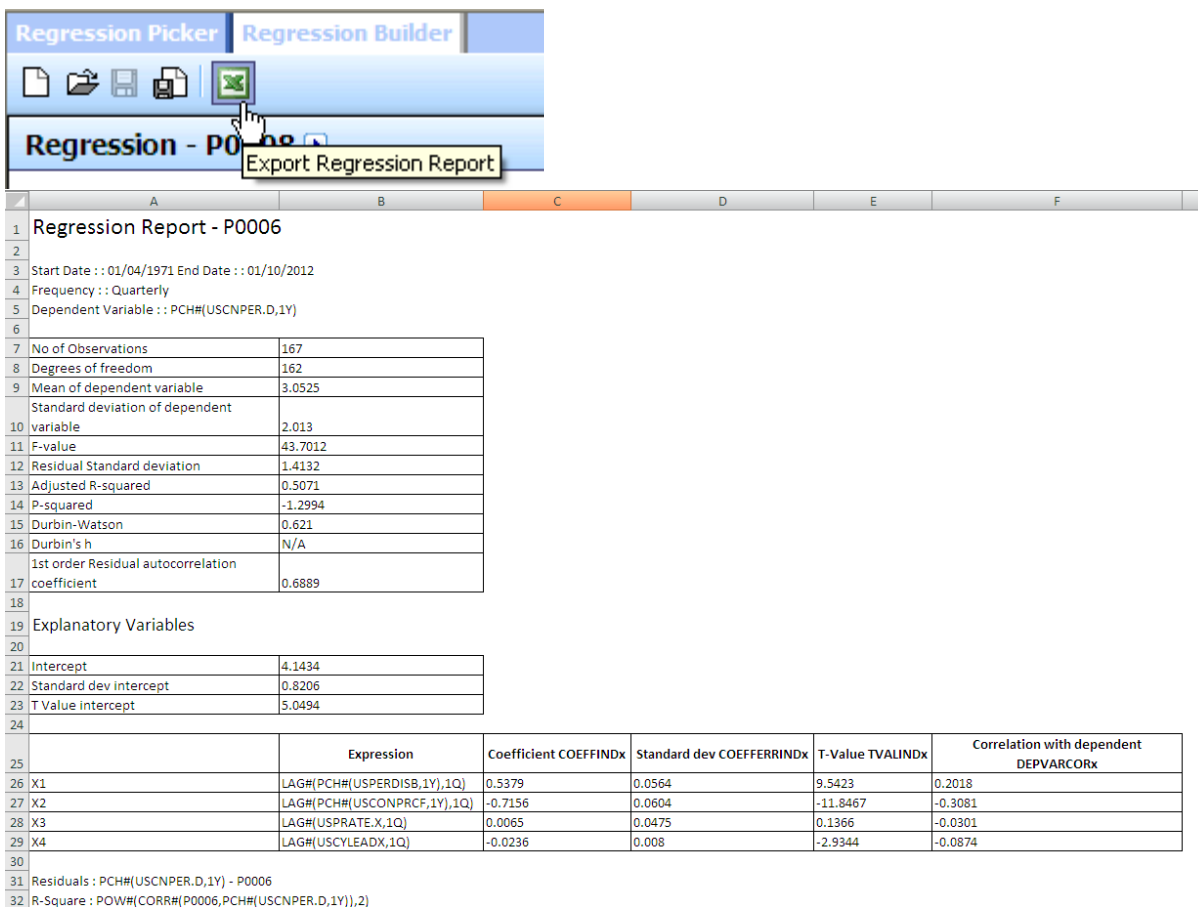


The difference between the values predicted by the model and the actual values can be plotted as residuals.

By including forecasts or lagged expressions in your explanatory variables you can also generate forecast values for the dependent variable. These can be charted using the FRV (Forecast Variable) datatype.



The regression report can be viewed online or exported to Excel:



Regression Picker **Regression Builder**

Regression - P0006

Export Regression Report

Regression Report - P0006					
Start Date :: 01/04/1971 End Date :: 01/10/2012					
Frequency :: Quarterly					
Dependent Variable :: PCH#(USCNPER.D,1Y)					
No of Observations	167				
Degrees of freedom	162				
Mean of dependent variable	3.0525				
Standard deviation of dependent variable	2.013				
F-value	43.7012				
Residual Standard deviation	1.4132				
Adjusted R-squared	0.5071				
P-squared	-1.2994				
Durbin-Watson	0.621				
Durbin's h	N/A				
1st order Residual autocorrelation coefficient	0.6889				
Explanatory Variables					
Intercept	4.1434				
Standard dev intercept	0.8206				
T Value intercept	5.0494				
	Expression	Coefficient COEFFINDx	Standard dev COEFFERRINDx	T-Value TVALINDx	Correlation with dependent DEPVARCORx
X1	LAG#(PCH#(USPERDISB,1Y),1Q)	0.5379	0.0564	9.5423	0.2018
X2	LAG#(PCH#(USCONPRCF,1Y),1Q)	-0.7156	0.0604	-11.8467	-0.3081
X3	LAG#(USPRATE.X,1Q)	0.0065	0.0475	0.1366	-0.0301
X4	LAG#(USCYLEADX,1Q)	-0.0236	0.008	-2.9344	-0.0874
Residuals : PCH#(USCNPER.D,1Y) - P0006					
R-Square : POW#(CORR#(P0006,PCH#(USCNPER.D,1Y)),2)					

Save your models in the picker for easy retrieval or editing later. Models can be shared across users for collaborative working.



Regression Picker **Regression Builder**

Regressions Results 50

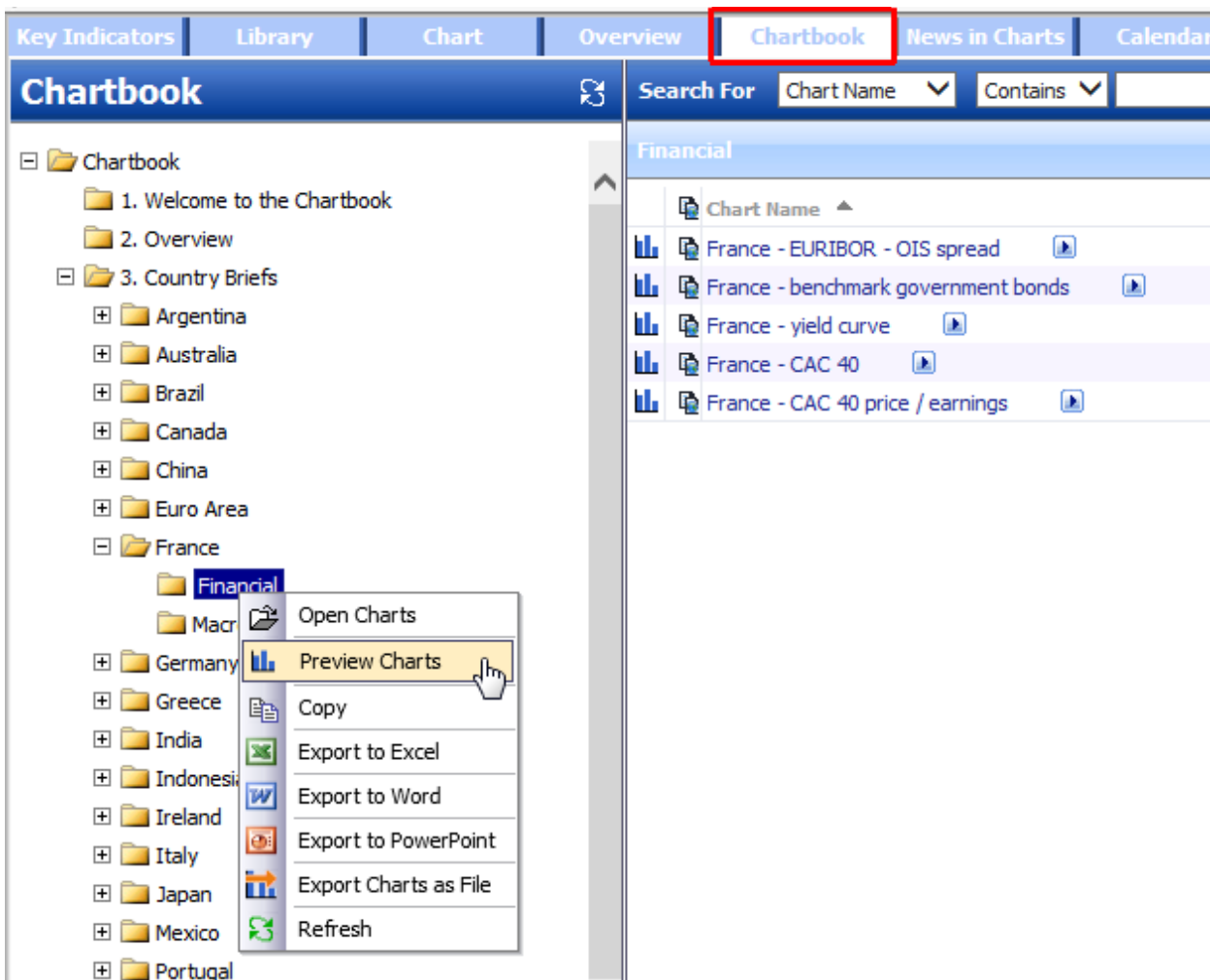
Datastream Shared

Display Name	ID	Frequency	Start Date	End Date	Dependent Variable	Explanatory Variables
UK INFLATION DERIVED FROM EURO FX RATE	P0001	Monthly	01/01/1990	31/12/2010	UKCPANL	UKEURSP
unemployment	P0004	Monthly	01/02/1992	01/12/2012	USUN%TOTQ	USIPMAN.G USNOMDXTB
US NONFARM PAYROLL - MODEL w lagged NFP as input	P0005	Monthly	01/05/2001	LATEST	ACH#(USEMPALLO,1M)	ACH#(USADPTNCO,1M) AC...

Chartbook charts

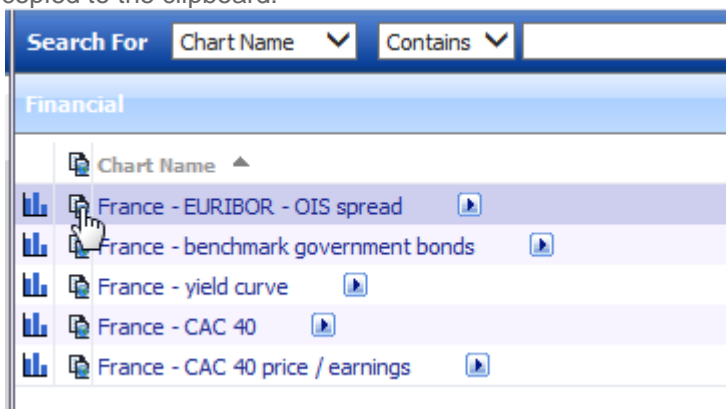
In Datastream Charting the Chartbook tab displays a library of pre-built charts from Fathom's economists and researchers. The charts use Datastream data and charting capabilities and cover a wide range of economic and financial market indicators for developed and emerging economies, together with key international comparisons.

Right click on a folder to preview the charts.



You can use the Chartbook charts as a reference library to check trends or to save time when creating your own library of charts. The charts can be exported directly into documents or modified with your custom settings and saved in your own Shared Library.

If you want to share the URL of the chart click on the icon next to the chart name and the URL will be copied to the clipboard:



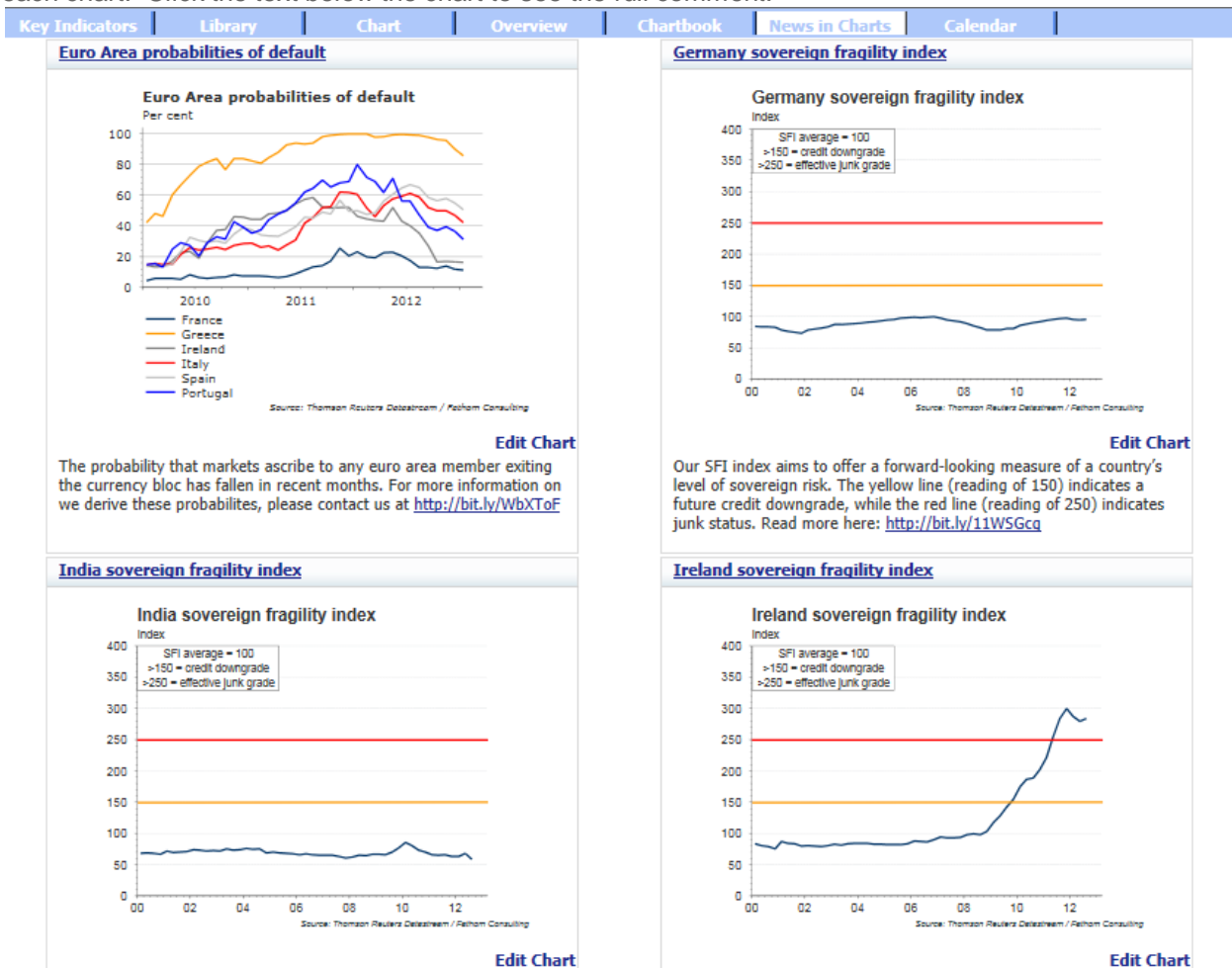
In the **Fathom** tab you can also:

- Preview the Fathom charts using the **Preview Charts** option.

- Copy Fathom charts to your Shared and Private folders using the **Copy** option.
- Export Fathom charts to Microsoft Office and your Desktop using the **Export** option.

News in Charts

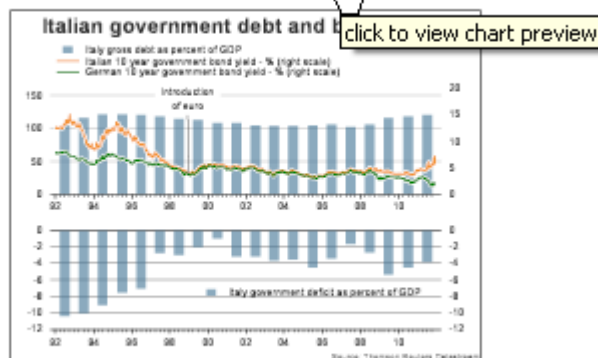
The News in Charts tab displays topical charts together with brief commentary on the significance of each chart. Click the text below the chart to see the full comment.



You can use the **Edit Chart** link below the chart to open the chart and its settings, then customize as required and save.

Alternatively, if you just want to see the chart in more detail, click on the link above each chart to view an enlarged version of the chart:

[Italian debt and yields - click link to preview](#)

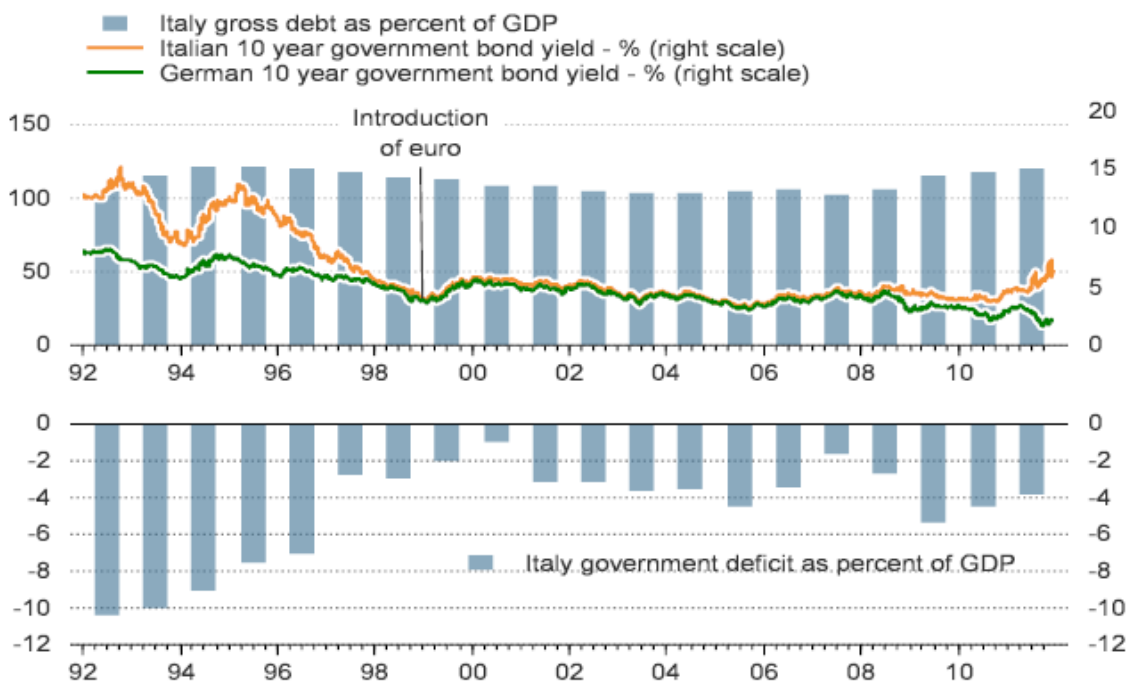


[Edit Chart](#)

Italian debt and yields - click link to preview (Thomson Reuters Gallery Charts)

[Close](#)

Italian government debt and bond yields



Source: Thomson Reuters Datastream

Build Number: 3770

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