# **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

This document covers:

ADDING SERIES TO CHARTS
Series suggest
Using Navigator
Typing in directly4
Recent series and related series
Deleting lines
SETTING THE DATE RANGE
Start and end dates5
Date range5
Drag to zoom6
APPLYING FUNCTIONS AND USING STORED EXPRESSIONS
Functions6
Stored expressions8
Stored regression
Correlation
APPLYING DATATYPES AND CURRENCIES
Datatypes12
Currencies
Multiple series14
FORMATTING YOUR CHART
Multi-chart editing15
Multi-pane charts
ANNOTATING YOUR CHART
Series annotations
Forecasts
Third party forecasts
Substitutable text
User created shaded bands
Bands defined by dates
Bands based on conditional expressions
Advanced option24



**THOMSON REUTERS** 

Formatting	
STYLING YOUR CHART	25
Line settings	25
All lines editor	26
Chart background and foreground	27
Fonts	29
Access desktop fonts	29
Saved styles	30
SAVING CHARTS	
RETRIEVING AND MANAGING CHARTS	33
Organising charts	33
Datastream, Shared and Private folders	34
Chart properties	35
Locking charts	35
Managing charts	36
Previewing charts	36
Searching for charts	37
Recycle Bin	
EXPORTING AND PUBLISHING CHARTS	39
Exporting to Microsoft Office	39
Export Layouts	
Components required for using Datastream Charting in Office	40
Refreshing charts received from another user	41
Exporting as an image file	41
Sharing a chart using the URL	
USING CHARTS WITH A LIST	43
OTHER CHART TYPES	45
Time scatter charts	45
Static bar charts	46
Static scatter charts	47
Pie charts	48
Collections	50
Setting up Collections	50
Regression analysis	51
Chartbook charts	54
News in Charts	56

# **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.

Key Indicators	Library	Chart	Overview	Chartbook	News in Charts	Calendar	
	i 🎒 📠 🚼 🔊		🗶   200% 🗸   💰	s 🛷 🛃 💽	Size 🕞 Panes 💽 Dates	Time Scatter	~
View : Series	and Dates						
Chart		<m)< td=""><td></td><td></td><th></th><td></td><td></td></m)<>					
Annot	ations and Forecast	is 📕					

Template

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.

Key Indicators	Library Chart Overv	iew)	Cha
	3 🚭   🜆 🚼 💷 🗢 🔍 🚼 🕮 🛣	Fit	× 4
Series and	Dates View : Series and Date	es	~
Series			
▶ Line 1 🔳	apple		]
	Search for apple* in Datastream Navigator		
20-20 CONT 1	Apple (in Equities)		200
🚺 Line 2 💻	Apple Finance (in Equities)		
	Apple International (in Equilies)		1
	Apple Rush (in Equities)		
	Golden Apple Oil and Gas (in Equities)		

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 **D** and click the **Find New Series...** option in the menu.

Series and	Dates	View : Series and Date	s	~	Chart - [Not sa	
Series						
膨 Line 1 📕					1.0 T	
	[Type expression	n or hover over arrow]		Find N	ew Series	
I				Enter New Series		
				Build U	lser Expression	
				Find Stored Expression		
				Find Regression		
				Select	Recent Series 🔹 🕨	
				Find Se	eries Related To 🕨	

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.

BACK	EXPLORE	CRITERIA SEARCH	USE SEARCH REF	SEARCHING HINTS	SYNCHRONISE USER DATA		HELP
\$	mic	crosoft			×	Search	
Choose a single category >>							
	Change	s on Datastream					

# 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.

Series and Dates		
Series		
▶ <u>Line 1</u> ■	FTSE 100 [Type expression or hover over arrow]	
▶ <u>Line 2</u> 📕	[Type expression or hover over arrow]	

### 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.

Series									
🗈 Line 1 📕							1.0	7	
	[Type expression or hover over arrow]	0	h	Find	Nev	v Seri	es		
				Ente	er Ne	w Se	ries		
				Build User Expression					
				Find Stored Expression					
				Find Regression					
				Sele	ct Re	ecent	Serie	s	▶
				Find	Seri	es Re	lated	То	

# **Deleting lines**

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

S	Series and Dates						
Se	eries						
	Line 1 Edit	fer:	FTSE 100 FTSE 100				
	Reorganise Delete		[Type expression or hover over arrow]				

# 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**.

			-3M
			-6M
			-1Y
			-2Y
			-5Y
Dates			-10Y
Dates			-15Y
Date Range			-20Y
Start	BASE	× 💽	Base 1
End	LATEST		

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.

Key Indicators Library	Chart	Overview	Chartbook	News in Charts	Calendar	
🗅 😂 🖩 🗗 🎒 🌆 🚼 🔊	🛯 🖶 📑 🎬 🛣	200% 🗸 💰	ኛ 🔗 😭   💽 Siz	ze 💽 Panes 💽 Date	s Time Series	¥
					Range of Data	
				From	n -3 Months	L
				From	n -6 Months	
				From	n -1 Year	
				From	n -2 Years	
				From	n -5 Years	
				From	n -10 Years	
				From	n -20 Years	

### Drag to zoom

Getting Started Guide

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.

	Click	and drag in	n the highlig	hted area to zoom the	e date range	,	m
1965 1970	1975	1980	1985	1990 🗟 1995	2000	2005	2010
Use the <b>Undo</b> but	on on the to	polbar to re	eset the ran	ige.			
Key Indicators	Library		Chart				
₿₽₽₿₽₽	j 🗾	<b>19</b> (21		*			

# **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.

Series			
膨 Line 1 📕	BARC		
	BARCLAYS		
	% Percentage Change	►	
	/ Annualised Percentage Change		
		Ð	1D راس
	≫ Lag		1W 🖤
	≪ Lead	►	1M
	🗝 Moving Average		1Q
	Exponential Weighted Average		1Y
	Σ Sum		Enter Period
	½ Inverse		
	🕸 Seasonal Adjustment		
	∛ Trend		
	ං Standard Deviation		
	RSI Relative Strength Index (RSI)		
	¥₀₀ Rebase		
	+ Add		
	— Subtract		
	× Multiply	Þ	
	÷ Divide		
	Use Stored Expression as Function		
_	Build User Expression		L
	Functions Help		

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.

Series and Dat	es	
Series		
▶ Line 1	ACH#(USEMPALLO, 1M)	
	[Type expression or ver arrow]	

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.

All Series		
All Lines	All Series On Chart	

# Stored expressions

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

Series and	Dates View : Series and Dates	~	Chart - [Not sav
Series			
🗈 Line 1 📕			1.0
	[Type expression or hover over arrow]	Find N	ew Series
1		Enter	New Series
		Build U	Jser Expression
		Find S	tored Expression
		Find R	egression
		Select	Recent Series
		Find S	eries Related To 🕩

The Expression Picker will open in a new window.

Expression Picker		
Expressions 8	Search For Any 🗸 Contains 🗸	In
🖃 쳙 Datastream	Technical Indicators	
🚞 Bond Ratios	A Title ▲ Code ▲ Expr	ression 🔺
Call Equity Ratios		/#(((X-MIN#(X(PL),5D))/(MAX
Exchange Rate Expressions		0),3W) V#(MAV#(((X-MIN#(X(PL),5D)
🧰 Growth Rates	*100	0),3W),3W)
interest Rate Expressions		MIN#(X(PL),5D))/(MAX#(X(PH
Macroeconomic Expressions		V#(((X-MIN#(X(PL),5D))/(MAX 0,3W)
🛅 Risk Measures		JM#((ACH#(X,1D))/ABS#(ACH
Carl Splicing	LOWER BOLLINGER BAND	/#(X,20D)-(2*SDN#(X,20D))
Technical Indicators	B UPPER BOLLINGER BAND     I13E     MAV	/#(X,20D)+(2*SDN#(X,20D))
Volatility	B MOVING AVERAGE OF RSI ■ 064E MAV	/#(RSI#(X,Y),Z)
🕀 🚞 Shared	AMACD (WEEKLY) - TRIGGER	A#(EWA#(CWA#(X,I),0.15)-E
Search Results	ACD (WEEKLY)	A#(CWA#(X,I),0.15)-EWA#(0
🗟 Recycle Bin	A MOVING AVERAGE PLUS 1 STD DEV	/#(X,3W)+SDN#(X,3W)

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.

### Set Expression Substitutables -- Webpage Dialog

Enter series for stored expression **MOVING AVERAGE OF RSI (064E)**: MAV#(RSI#(X,Y),Z)

Parameter X	VOD	
	[Type expression or hover over arrow]	
Parameter Y	14D	
	[Type expression or hover over arrow]	
Parameter Z	4W	
	[Typy expression or hover over arrow]	

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

Expression Picker
Expressions ସ
🕀 🚞 Datastream
🗆 🦢 Shared
🚞 Brian G volatility expressions
i Macro expressions
🚞 Ratios
🚞 Sonja
Ungrouped Expressions
🔯 Search Results
🗟 Recycle Bin 🛛 🔓

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

Key Indicators	Library		Ch
▯╔╡ॖॖॖॗॖॵॖॖॖॖॖॖ	fx .	5	¢

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.

🖉 Expression Builder - Window	vs Internet Explorer	
Expression Picker Expression Bui	ilder	0
	Expression code Go	
Expression		
Type expression syntax below.		
RSI#(X, 14D)		Check Syntax Use Expression
Build Expression		
		rt a series, datatype, currency or expression at that position.
Select: Series 🖻 Datatype 🛛	Currency Stored Expression	
Place your cursor in the textbox around it.	above, then click the links below to inser	t a function at that position. Alternatively, highlight a string in the textbox to wrap a function
Functions	Syntax	Definition
Functions Search	Technical	
E Carl Functions	Function RSIN#(Expression,Period)	Relative strength index (RSI#)
Averages		
ing Sums		This calculates a relative strength index (RSI) for a daily series. The RSI is a price following oscillator. It is used to indicate the strength of a single security. Time
Display		periods of 9, 14, and 25 days are the most commonly used.
Technical		
🚞 Statistical	SAM#(Expression)	Format
i Mathematical		RSI#(Expression, Period)
Search Results		The formula uses:
		Upward changes defined as the absolute change if this change is positive, and zero otherwise
		Downward changes defined as minus the absolute change if the latter is positive, and zero otherwise
	4	<u> </u>
·	Save Save A	As Use Expression Cancel
Source: Thomson Reuters Datastro		Build Number:
boareer monison reaters Datastre		

# Stored regression

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

Series and	Dates View : Series and	Dates	~	Chart - [	Not sa
Series					
🗈 Line 1 📕				1.0 -	1
	[Type expression or hover over arrow	v] 🗈	Find Ne	ew Series	
			Enter N	lew Series	
			Build U	ser Expression	n
			Find St	ored Expression	on
			Find Re	egression	0-
			Select	Recent Series	<>
			Find Se	eries Related T	Го <b>)</b>
			C.		

The Regression Picker will open in a new window.

Regression Picker Regression Builder										
Results 50 V										
							R			
<b>A</b>		ID 🔺	Frequency	Start Date	End Date	Dependent Variable 🔺	Explanatory Variables			
AYROLL MODEL		P0001	Monthly	5/1/2002	LATEST	ACH#(USEMPALLO, 1M)	ACH#(USADPTNCO, 1M) AC			
10 BANKS MODEL		P0002	Monthly	6/1/2000	LATEST	S2SEB2E	PCH#(LAG#(EMM1B, 18M			
		P0003	Quarterly	4/1/1985	4/2/2012	ACH#(LN#(USGDPD), 1Q)	LAG#(ACH#(LN#(USGDP			
NSUMPTION MODEL		P0005	Quarterly	1/1/1971	LATEST	PCH#(USCNPER.D, 1Y)	PCH#(USPERDISB, 1Y) USCP.			
NSUMPTION MODEL w		P0006	Quarterly	1/1/1980	LATEST	PCH#(USCNPER.D, 1Y)	LAG#(PCH#(USPERDISB, 1Y).			
	NSUMPTION MODEL	AYROLL MODEL (a) 20 BANKS MODEL (a) INSUMPTION MODEL (a) INSUMPTION MODEL (c)	AYROLL MODEL	AYROLL MODEL  P0001 Monthly D0 BANKS MODEL  P0002 Monthly P0003 Quarterly NSUMPTION MODEL  P0005 Quarterly NSUMPTION MODEL  P0005 Quarterly NSUMPTION MODEL  P0005 Quarterly NSUMPTION MODEL  P0005 Quarterly	AYROLL MODEL         P0001         Monthly         5/1/2002           D0 BANKS MODEL         P0002         Monthly         6/1/2000           P0003         Quarterly         4/1/1985           INSUMPTION MODEL         P0005         Quarterly         1/1/1971           INSUMPTION MODEL         P0005         Quarterly         1/1/1971	AYROLL MODEL         P0001         Monthly         5/1/2002         LATEST           D0 BANKS MODEL         P0002         Monthly         6/1/2000         LATEST           P0003         Quarterly         4/1/1985         4/2/2012           NSUMPTION MODEL         P0005         Quarterly         1/1/1971         LATEST           NSUMPTION MODEL         P0005         Quarterly         1/1/1971         LATEST	AYROLL MODEL         ▶ P0001         Monthly         5/1/2002         LATEST         ACH#(USEMPALLO, 1M)           D0 BANKS MODEL         ▶ P0002         Monthly         6/1/2000         LATEST         S2SEB2E           ▶ P0003         Quarterly         4/1/1985         4/2/2012         ACH#(LN#(USEMPALLO, 1M))           NSUMPTION MODEL         ▶ P0003         Quarterly         1/1/1971         LATEST         S2SEB2E           NSUMPTION MODEL         ▶ P0005         Quarterly         1/1/1971         LATEST         PCH#(USCNPER.D, 1Y)           NSUMPTION MODEL w         ▶ P0005         Quarterly         1/1/1971         LATEST         PCH#(USCNPER.D, 1Y)			

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 <u>click here</u>.



Regression Picker Regression Builder										Q
□         □         □           Regression - P0001* ▶		Regress	sion ID:	Go	Re	port - PO	0001			
Display Name US NONFARM PAYROLL MODEL	×	Use Reg	pression			art Date : d Date : L	: 5/1/2002 ATEST			
Dependent Variable							Monthly Variable : A	CH#(USEM		n
	Start Date	End Date	Frequency			of observati				130
ACH#(USEMPALLO, 1M)	3/1/1950	2/1/2013	Monthly			rees of free				125
🜆 🚺 EMPLOYED - NONFARM INDUSTRIES TOTA 🗈					Mea	an of depend	dent variable			35.4308
					Sta	, ndard devia	tion of depende	nt variable		247.5246
					F-v	alue				66.6263
					Res	idual standa	ard deviation			142.0838
Explanatory Variables					Adj	usted R-squ	ared			0.6705
	Start Date	End Date	Frequency		P-s	quared				-0.0302
X1 ACH#(USADPTNCO, 1M)	5/1/2001	2/1/2013	Monthly	~	Dur	bin-Watson				1.4369
ADP PRIVATE EMPLOYMENT CHANGE: TOT 🗈					1st	order residu	ual autocorrelatio	on coefficient		0.2806
X2 ACH#(USNPNEQ, 1M)	8/1/1997	2/1/2013	Monthly		Exp	planatory	/ Variables			
🔝 🧕 ISM NONMANUFACTURERS SURVEY INDEX: 🕨						Coefficient	Standard deviation	T-value	Correlatio depend	
X3 USUNCLM	1/6/1967	3/8/2013	Daily		XO	454.108	105.059	4.3224		N/A
oboliteuri	-,-,		,		X1	0.9232	0.1787	5.1669		0.1176
🜆 US UNEMPLOYMENT (SA) - INITIAL CLAIMS : 🕨					X2	16.118	4.8707	3.3092		0.115
X4 LAG#(ACH#(USEMPALLO, 1M), 3M)	6/1/1950	5/1/2013	Monthly		X3	-1.1058	0.2593	-4.2645		-0.6998
ENGRACIA (COLLARACEO, 10), 500	-,-,		,		X4	0.5139	0.0838	6.1314		0.7391
X5 TW:MKS	1/29/2008	3/18/2013	Daily				ACH#(USEM			
MKS							: {POW#(CO 0,1M)),2)}	КК#(PUUU	I,ACH#	
				$\sim$						
X6 Estimation Sample										
Max Date Range & Frequency Use Sample	Feb 2008	Feb 2013	Monthly							
Frequency     Monthly       Start Date     May       End Date     MMM	EST									
Save Save A	s Cancel									

# **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 膨	Line 2	Apply
12M	0.480	
11M	0.515	
10M	0.560	
9M	0.604	
8M	0.646	
<b>7</b> M	0.679	
6M	0.710	
5M	0.738	
<b>4</b> M	0.753	
ЗМ	0.765	
2M	0.758	
1M	0.732	
OM	0.677	
-1M	0.635	

# **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.

Key Indicators	Library	Chart	Overvie	w	Chartbook	N	ews in Charts
🗅 😅 🖬 😰	🎒 🔝 👬 🔊	🗠 🕂 🕂 🖓	200%	2 🛷	' 🤌 😭  🗈 s	ize	Panes Date
Series and D	ates	View : Series and	l Dates	~	Chart - [No	t sa	ved] 🗈
Series							
🗈 Line 1 💻	MKS				400		
far.	MARKS & SPENCE	R GROUP		Find No	ew Series		
Line 2	1			Enter N	New Series		
	[Type expression	or hover over arrow	v] 🗈		ored Expression		
				Save A	s User Expression		
				Find Re	egression		
				Select	Recent Series	▶	
				Find Se	eries Related To		
				Dataty	pe	Ð	Find Datatype
				Cren	су		Enter Datatype
				View		▶	

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

Series and Dates		
Series		
▶ <u>Line 1</u>	FTSE 100(VO) [Type expression or hover over arrow]	

## **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.

Series	
▶ Line 1	JPGDPD~USD
fx=	GDP (AR) : Japan (USD)

### 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.** 

All Series	
All Lines 🜆 All Series On Chart	Find New Series
	Enter New Series
	Datatype 💽
	Currency

# 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.

Series and Dates	Series and Dates Chart Settings
	Annotations and Forecasts Template

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:

Extranet Tra	ining Contact Us \	What's New	/? 🕐 Bao	ck
Search Reset	Displayed Results	50 💌 V	/iew List	~
🚔 🖻 🔐 🔯 💥	≙	× W	o 🖬	ន
Open Multiple Charts				<b>v</b>
				✓
				<ul> <li>Image: A start of the start of</li></ul>

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

Dates Date Range	Economist Commodity All Items(\$) DEAD     Baltic Exchange Dry Index (BDI)     S&P GSCI Commodity Spot     Westpac Commodity Futures Ind
Start -5Y  End LATEST	
Baltic Exchange D X Global Basic Mate X	Major Commodity I × Asset performance ×

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

en-GB Support					
•	<b>a</b> 100	1% + 3			

# Multi-pane charts

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

Key Indicators Library	Chart	Overview	Chartbook	News in Charts	Calendar
🗅 🖙 🖩 🗗 🎒 🌆 🚼 👘	🧠   🕂 🕂 🖓	📩   200% 🗸   💰	🖇 💰 📔 🗈 Si:	ze Panes Da	Ites Time Series
				Single Pan	e
				Two Equa	Panes - 1:1
				Two Pane	s - 2:1
				Three Equ	al Panes - 1:1:1
				Three Pan	es - 2:1:1
				Two Side	Panes - 1:1
				Four Pane	s - 1:1:1:1
				Custom	

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 and Dates View :	Series and Dates Chart Settings
	Annotations and Forecasts
	Template

#### **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:

Line Forecast 1 Hide						
X Pane 1 » Line 1 » Li	ne Forecas	st 1				
Frequently Used	Series	Style and Colour	Legend	Markers		
Series						
Start/End Values	1(	January 2013)				
Prefer Values for						
Prefer Values for (on L	<u>.ine 1</u> ) 🔇	) Actual 🧕 Forecast	OBoth			
Add New: Line Forecast Annotation						
C	К	Cancel A	pply			



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

Lin	Line Forecast Annotation 1				
×	Pane 2 » Line 2 » Line Fo	precast	t <u>1</u> » Line Forecast	Annotation 1	
	Frequently Used Text and Formatting		Position		
	Text and Formatting				more
	Text	{FVAL	.} {FDATE}		
	Position				more
	Date			Start of Forecast	]
	ОК	(	Cancel	End of Forecast	<u>м</u>

- 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 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.

Text Box 1		Hid	<u>e</u>
X Pane 1 » Text Box 1			
Frequently Used	Text and Formatting	Position	
Text and Formatting		more	
Text (your te	ext here)		Name
ОК	Cancel Apply	,	Latest Value Date of Latest Value
			Today

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:

Band 1			Hide
× Pane 1 » Band 1			
Frequently Used	Dates and Expressions	Text	Styling
Dates and Expression	5		more
Type O Recession Band O Date O Express			IF# Expression
Recession Bands 🛛 🔒	[no band]		
Political Bands	US Democrat president 膨 [no band]	1	
	OK US Democrat president		
	US Republican preside		

#### **Bands defined by dates**

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

Band 1 Hide				
X Pane 1 » Band 1				
Frequently Used	Dates and Expressions	Text Styling		
Band Options				
Type Recess	sion Band 🔘 Political Band 💿 D	Date CExpression CIF#Expression		
Recession Bands				
Recession Bands  🔒 [no band]				
Political Bands 🛛 🔒 [no band]				
Custom Dates				
Dates <u>Add/Modif</u>	<u>y Dates</u>			
Conditional Expression	13 13			

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 la	ast empty row		
© 09/03/2009			Latest Date
		OK Cance	Intraday
			+1M
			+3M
			+1Y

Add more bands as required:



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

	A1	• ()	$f_x$	2
	А	В	С	
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 Express	ion
Expression	JPCPANNL  CPI: NATIONAL MEASURE - ANNUAL INFLATION
Operator	Greater than
Value	1



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:





#### **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%:

00100	
Conditional E	xpression
Expression	[Type expression or hover over arrow]
Operator	Greater than
Value	
Advanced	
IF# Expression	IF#(((JPEXDEBTA/JPGDPA)*100)-150,GT,ZERO)
	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%	<i>k</i> ∂ :
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.

B	Band 1 Hide			
:	X Pane 1 » Band 1	L		
	Frequently Used T		Styling	Dates and Expressions
	Styling			
	Fill 1			
	Fill 2	[		
	Transparency	[	50	
	ОК		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:

B			
	× Pane 1 » Band 1		
	Frequently Used	Dates and Expressions Text Styling	
	Text		
	Text	Deflation	
	Show in Legend	<b>v</b>	
	Label Bands	<b>v</b>	
	Label Horizontal Offset	84	
	Label Vertical Offset	-2	
	Offset From	Top Left Corner	
	1.0		
	1.0	Deflation	Deflation

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.

	Series and Dates
Series and Dates	Series
Series	膨 Line 1
Line 1 ■ VOD	Edit
VODAFONE GROUP	Reorganise
Line 1 : VODAFONE GROUP	Delete 🔝

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.

Style and Colour			
Line Type		Line	<u>all</u>
Line Colour	₿		<u>all</u>
Line Width	₿	1 ½ pt	<u>all</u>
Line Dash	₿		<u>all</u>

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.

Properties     Line Dash       Series     Expression Prefer Values for       Style and Colour     Iine Type       Line Type     Iine Colour       Line Oash     OK       Bar Style     OK       Bar Border     Bar Border       Bar Border Colour     Bar Border Colour       Bar Border Colour     Bar Border Width       Axis     Display on Axis       Exclude from Rebase     Legend       Legend Text     Area/Bar       Fill Colour 1     Fill Colour 1       Fill Colour 1     Fill Colour 1       Fill Colour 2     Transparency (%)       Area Fill Transparency (%)     Area Fill Transparency (%)       Marker Size     Marker Border Colour       Marker Border Colour     Marker Border Colour
Expression Prefer Values for Style and Colour Line Type Line Colour Line Vidth Line Dash Bar Style Bar Border Colour Bar Border Colour Bar Border Colour Bar Border Colour Bar Border Dash Bar Border Dash Bar Border Width Axis Display on Axis Exclude from Rebase Legend Legend Text Area/Bar Fill Colour 1 Fill Colour 1 Fill Colour 2 Transparency Transparency (%) Area Fill Transparency (%) Marker Style Marker Style Marker Style Marker Stree Marker Stree Marker Stree Marker Border Dash Marker Border Dash Marker Border Dash Marker Border Dash Marker Border Dash Marker Border Dolur Marker Border Dash Marker
Marker Style Marker Size Marker Border Colour Marker Border Dash Marker Border Width Transparency (%) Axis Markers

# 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.

anvas		<u>Hide</u>
Size		
Width	960 px	
Height	720 px	
Colour		
Background Colour 1		
Background Colour 2		
Foreground Colour		
Flat Fill (No Gradient)		
Border		
Display Border		
Colour E	More Colour	s
Width	1 pt ()	
Dash	 	
Attribution Text		
Source Attribution	Thomson Reuters Datastream	
Source Alignment	Far Right 💙	
Source Font		
Related - Fonts		
Master Font		
ОК	Cancel Apply	

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.

Font				
Name	Arial 🔝	al		
Size	16	User Fonts Webpage Dialog		×
Colour [		Please select a font:		
Style	Bold	C Arial Unicode MS	Arial Unicode MS	2
Chart Title Font		⊂ BigVesta	BigVesta	
		C BigVesta Light	BigVesta Light	
Chart Sub	Character Mark	← Book Antiqua	Book Antiqua	
Master Pa	ine Title Font	C Bookman Old Style	Bookman Old Style	
Axis Font	6	○ § / / ∓ ···· ~ 4 0 = 4 0 → ·· / ≓ Q	Bookshelf Symbol 7	
Legend Fo	ant	C Calibri	Calibri	
Master Annotation Font		⊂ Cambria	Cambria	
Source Fo	11.04 P0000000 00000	C Cambria Math	Cambria Math	
source Po		C Candara	Candara	
_	OK	C Century	Century	
		C Century Gothic	Century Gothic	
		Comic Sans MS	Comic Sans MS	
		Consolas	Consolas	
		Constantia	Constantia	
		⊂ Corbel	Corbel	
	1	C Courier New	Courier New	3

**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.

Key Indicators	Library	Chart	Overview	Chartbook
▯╔฿	fx 🚦 🔊	ca   🕂 🖶 🖓	200% 🗸	🖋 💰 🚰 💽 Si

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.

Colour	
Background Colour 1	
Background Colour 2	
Foreground Colour	Locked by the current Style. Click to unlock.
Attribution Text	
Source	Homson Reuters Datastream

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.

Key Indicators	Library	Chart		Overview		Chartbo
▯╔╡ॖॖॗॏॖॖॖॖऀॖॖॖॖ	<u>f</u> . 👬 🔊 (	> 🕂 🕂 🖓	R 👗	200% 🗸	1	ø 🗗 🛛

You can also apply saved styles to multiple charts in the Library. See <u>Managing and Retrieving Charts</u> 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.

Search	For s	Style Name 💌 Containing
	₿	Style Name 🔺
15	ĥ	Colour with markers 🗈 Edit This Style
1 <mark>.</mark> S	ſ	Solid Lines - colour 🗈 Rename Style
IS	° E	Dotted Lines - colour 🗈 Delete Style
IS	° la	Black And White print style Lock Style
IS	° E	Bar charts 🗈 Copy Style
llS	ſ	Thomson Reuters brand colou Move Style
		Set As My Default n
		Save Style As 🖑
		Description

# **SAVING CHARTS**

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



The Save dialog will appear.

Saved Chart Settings Webpa	ige Dialog	×
Chart Information	MARKS & SPENCER GROU	
	MARKS & SPENCER GROU	
Locked 🥑		
Short Code 🕐		
Expressions	MKS	
Description 🥑	$\hat{}$	
Select Destination Folder	Creat	te a New Folder
🗆 🗁 Shared		
i.03.14.09		$\sim$
i.03.14.10		
<b>1.05.02</b>		
<b>1.05.04</b>		
<b>1.05.09</b>		
🕀 🧰 1.05_rename		
🚞 1Y % change of UN	IT LABOR COSTS - NONFARM BUSINESS	
🚞 All Lines		<u> </u>
🕀 🧰 Casey		•
	OK Cancel	

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 <u>Locking charts</u> 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.

Chart - [Not saved]	Forecast - prefer both option - user forecast and actuals (Forecasts)
	L Stacked area - employment by duration (Area Charts)
	Annotations - freehand lines on a scatter chart (Annotations)

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 <u>Using charts with a list.</u>



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

What's New? 🕐 Back
Short Code: FTSE1 Go
Load Chart using Short Code

#### **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 encoded in 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 **u** 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.

Search Re	set		Displayed Resu	lts 50 💌
		LLS 🖗 🕄	🕅 💾 🖹	W 🗿
Style 🔺	Crea Preview sel	ected charts	Owner ID 🔺	
	18/02/2008	22/01/2009	XTHO604	✓
	18/02/2008	22/01/2009	XTHO604	V

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,

Chart Browser		×
11 11		Set User Preferences 😭 🍎
Rows 2 Columns 2	ste of previewed charts Hight 250 Width 375 Apply Changes Reset	U
Kons je Coldins je	The second	

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.

Search For	Chart Name 🛛 💌	Contains 🔽	In	Any 🔽	Search	Reset 🕐
	Chart Name Short Code Style Name	Contains Equals	11	Datastream Shared Private		
	Owner ID Description Expression Created Date Modified Date Any			Any		

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.

Chart		ន
🖃 🗁 Datastream		
🚞 Example Charts		
🖃 🗁 Shared		
🖃 🗁 Economics and Strategy	Y	
🕀 🚞 Forecasts		
🕀 🚞 test		
🖃 🗁 Weekly chart book		
🚞 Employment		
🪞 Money		
🚞 Prices		
🕀 🚞 Fixed Income		
Carch Results		

#### **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 limit to the right of a single chart name and select Export Chart > Export Chart to Excel (or Word or PowerPoint).

1.0	3.1	4.1						<b>P</b>	Pa
	₿	•	Chart Name 🔺				Short Code 🔺	Style	*
ı.	₿		Chart21358238655332	Open Chart		)			
L	₿	6	Chart11358238641602	Rename Chart			chart11358	TR Whi	ite
				Delete Chart					
				Unlock Chart					
				Copy Chart					
				Move Chart					
				Save Chart As					_
				Export Chart		Export C	hart to Excel		
				Apply Style		Export C	hart to Word		
				Add New Short Code		Export C	hart to PowerPo	oint	
				Description		Export C	hart as Image I	ile(s)	
				Share Chart	►				
				Collections	►				

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.

		Displayed Resu	ts 50 💌
<b>∐_</b> S	😨 😂 🔖 ।	Provense 🖉 🛃	ō 🖬
Created 🔺	Modified 🔻	Owner ID Export Ch	harts to Excel
23/02/2010	01/04/2010	XTHO604	<ul> <li>Image: A set of the set of the</li></ul>
23/02/2010	23/02/2010	XTHO604	
23/02/2010	23/02/2010	XTHO604	

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

#### **Export Layouts**

Options	Export Order	-	
	Saved User Laye	outs	Ċ
Pre-form	atted layouts		
Layouts	Three columns	Y Previev	V
Size of e Width	Datastream Layouts Single column standard Single column large Two columns Three columns		
3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Shared Layouts [Use Save As on toolbar to store new layout]		
One t     One t	Private Layouts 4 columns 5 x 7 charts for newsletter		
Cost.	Monthly update layout 6 per page My layout		

### 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 <u>Customer Zone</u>.

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):

Datastream Charting	
Chart	
Library	
Manage	
Refresh	•
Edit Selected	
🚹 Run Template	
Help	•
🏠 Charts Options	

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.

1.03.14.10				r di
🔒 🎧 Chart Name 🔺			Short Code 🔺	Style 🔺
և 🔒 🥪 Chart21358238655332	Open Chart			
比 🔒 🎲 Chart11358238641602	Rename Chart		chart11358	TR White
	Delete Chart			
	Unlock Chart			
	Copy Chart			
	Move Chart			
	Save Chart As			
	Export Chart		Export Chart to Excel	
	Apply Style		Export Chart to Word	
	Add New Short Code		Export Chart to PowerPoi	int
	Description		Export Chart as Image Fi	ile(s)
	Share Chart	►		
	Collections	▶	J	

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

🙆 Export Chart as Image	e File(s) '	Webpage	e Dia	alog	×
Options					0
Export charts as file type	2				
O EMF					
○ WMF					
O PNG					
IPEG					
◯ GIF					
O EPS					
O SVG					
File Name					
{FolderName} - {ChartName	}			Folder Name	
Size of exported charts				Chart Name	
Width 25.41	Height	19.06	cm	Chart Title	
	-	,		Short Code	
O pixels				Owner ID	
				Day DD	
Background				Month MM	_
Transparent				Year YY	
Reset	Export	Chart	C	ose	

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-todate 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.

Series and Dates	Series and Dates Chart Settings
	Annotations and Forecasts
	Template

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

Template	
Templates can be used to view the same chart with different series.	
Convert this Chart to a Template	

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					
Substituti	on Selection				
Variable	Series Name	Used In			
©	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.

Preview With Series/List	
Series / List	Go 🕑 Find Constituent List
No list mnemonic entered	Find User Created List
	Find UCI List
	Find Series
	Select Recent Series 🔹 🕨

Click through the list constituents to see each chart.

Preview Wi	th Series/List - FTSE 100 CONSTITUENTS
Series / List	LFTSE 100 Go
	ADMIRAL GROUP (ADM)
	AGGREKO (AGK)
	ALLIANCE TRUST (ATST)
	AMEC (AMEC)
	ANGLO AMERICAN (AAL)
	ANTOFAGASTA (ANTO)
	ARM HOLDINGS (ARM)

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 <u>Managing and retrieving charts</u> 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.

Filter / Find	
Convert Template to Char	<u>t</u>
Series and Dates	

## **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.

🗅 😂 🖩 🖨 🎒 🔏 🚼 📨 🔍 🕂 🖶 📟 🏌 📧 💌 🚿 🔗 😭 💽	ze 🕟 Panes 💽 Dates Time Series 💌	
	Time Series	
	Time Scatter	
	Static Bar	
	Static Scatter	
	Pie	

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

Series and Dates	
Series	
X Axis	Y Axis
Scatter 1     MAV#(NWBNKRPTX, 3M)     MAV#(NWBNKRPTCY PROCEEDINGS COMMENCED : . )	NWCNFBUSX           BTS: MFG., MINING & QUARRYING - CONFIDENC .
	Add Another Line

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.

C 😂 🖩 🗗 🛃 🔚 📁 🕫 🕂 🖶 🚟 🛣 📕 💌 🚿	🔗 🛃 🗈 Size 💽 Panes 💽 Dates	Time Series 🛛 🔽
		Time Series Time Scatter Static Bar Static Scatter Pie

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:

Series and Date	25	View :
Series		
	Die Pie	
▶ Series 1		
	[Type expression or hover over arrow]	Find New Series
		Enter New Series
		Build User Expression
		Find Stored Expression
		Select Recent Series 🔹 🕨
		Find Series Related To 🕟

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



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

Series 2		<u>Hide</u>	
× Pane 1 » Series	2		
Frequently Used	Style and Colour	Annotations	
Styling			
Colour		🗈 <u>all</u>	
Transparency (%)	0		
Borders			
Border	Auto 📐	all	
Border Colour	•	膨 <u>all</u>	
Border Dash			
Border Width	1 pt	1/2 pt	
ОК	Cancel	Apply 1 ½ p	t
		2 %4 p	libe.
		3 pt 4 1/2 p	ot

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.

Key Indicators	Library	Chart	Ga
Charts			ន
🕀 🚞 Datastream			
🕀 🚞 Shared			
🕀 🚞 Private			
🕀 📄 Shared Collec	tions		
🕀 📄 Private Collec	Expand		
🔯 Search Result	Create a	New Collection	
	🕄 Refresh	din _	

You can create multiple levels of Collections.

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

				Extranet Tra	aining Contac	t Us Wha	t's New?	🕐 Back	
Sea	arch	F	leset		Displayed R	esults 50	Viev	w Details	*
		Ê		i 🕵 📡 🕉	K ≙ୱ ∢	<b>×        </b>	¥ 🗾 🧕	1 🖬 🕄	1
ode (	•	Style	•	Created Add	to Collection	Refreshed	Owner	r ID 🔺 🔽	
					11/04/2011	02/05/2012	2 ZREU0	32 🗸	
				08/03/2011	08/03/2011	02/05/2012	2 ZREU0	32 🔽	
				08/03/2011	08/03/2011	02/05/2012	2 ZREU0	32 🔽	
							Page 1	of 1 (3 items)	

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:

tranet Training Contact Us What's New?	🕐 Bac	k
E 😵 💘		
Short Code: Go	Chart	Data

# **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 (X1, X2, X3) 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 Builder and Picker				
egression Picker Regression Builder				
Regression - P0002 🗈		Regre	ssion ID:	
Display Name US personal consumption 1		Use Regr	ession	
Dependent Variable				
	Start Date	End Date	Frequency	
PCH#(USCNPER.D, 1Y)	01/04/1951	01/10/2012	Quarterly	
Image: Second Consumption Expenditures (. ▶				
xplanatory Variables	Start Date 01/01/1960	End Date 01/12/2012	Frequency Monthly	
Image: Second Consumption Expenditures (. Image: Second Constructures (. Image: Second Consumption Expenditures (. Image: Sec	01/01/1960	End Date 01/12/2012	<b>Frequency</b> Monthly	
Explanatory Variables K1 PCH#(USPERDISB, 1Y)	01/01/1960 01/02/1951			

Estimation Sample				
Max Date Range & Frequency	Use Sample	May 2001	Jan 2013	Monthly
Frequency Start Date End Date	Monthly V May V 2001 V MMM V YYYY V	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 R	egression Builder				
🗅 🖙 🛛 🗗 📓					
Regression - PO	port Regression Repo	rt			
A	В	С	D	E	F
Regression Report - POOD Start Date :: 01/04/1971 End Date :: 01 Frequency :: Quarterly Dependent Variable :: PCH#(USCNPER	/10/2012				
No of Observations	167	1			
Degrees of freedom	162	1			
Mean of dependent variable	3.0525	-			
Standard deviation of dependent	5.0525	-			
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	1			
Standard dev intercept	0.8206	-			
T Value intercept	5.0494	1			
1		4			
6	Expression	Coefficient COEFFINDx	Standard dev COEFFERRINDx	T-Value TVALINDx	Correlation with dependent DEPVARCORx
i X1	LAG#(PCH#(USPERDISB,1Y),1Q)	0.5379	0.0564	9.5423	0.2018
7 X2	LAG#(PCH#(USCONPRCF,1Y),1Q)	-0.7156	0.0604	-11.8467	-0.3081
3 X3	LAG#(USPRATE.X,1Q)	0.0065	0.0475	0.1366	-0.0301
9 X4	LAG#(USCYLEADX,1Q)	-0.0236	0.008	-2.9344	-0.0874

31 Residuals : PCH#(USCNPER.D,1Y) - P0006

32 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								ន
🚞 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	UKCPANNL	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.

Key Indicators Library	Chart	Ove	rview	Cł	artbook	News in Cl	harts	Calendar
Chartbook		ន	Searc	ch For	Chart Name	e 🗸 Co	ntains 🗸	
Chartbook  China  China	Charts w Charts to Excel to Word t to PowerPoint t Charts as File	S S	Finan G LL G LL G LL G LL G	cial Chart I France France France France	Name - EURIBOR - - benchmark - yield curve - CAC 40	OIS spread		

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:

Se	arch For	Chart Name	<b>~</b> (	Contains	<b>~</b>	
Fin	ancial					
	Chart N	lame 🔺				
Ш	France	- EURIBOR - (	DIS spread	i 🗈		
ш	France	- benchmark g	governmer	nt bonds		
ш	France	- yield curve				
ш	France	- CAC 40				
ш	Prance	- CAC 40 price	e / earning	js 🛽		

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:



© 2015 Thomson Reuters. All rights reserved. Republication or redistribution of Thomson Reuters content, including by framing or similar means, is prohibited without the prior written consent of Thomson Reuters. Thomson Reuters' and the Thomson Reuters logo are registered trademarks and trademarks of Thomson Reuters and its affiliated companies.