THOMSON REUTERS EIKON Advanced User Manual &

Methodology Guide

FOREIGN EXCHANGE, MONEY MARKETS, BONDS, EQUITIES, COMMODITIES AND ENERGY



Document History

Version	Date	Authors	Changes
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Part 1: How to Set Up Eikon



1. Setting up Thomson Reuters Eikon

Logging in

- 1. Point to Start > Programs > Thomson Reuters and choose Thomson Reuters Eikon.
- 2. Type your user ID and password.

	THOMSON REUTERS	English	×
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	User ID:		
	Password:	work email address	
	Sign me in auton princt use if device is sh	natically ared. Why? Sign In Cancel	
	Customer Zone • ThomsonReuter	s.com • Abo <mark>u</mark> t Us • Contact Us • Help	
3. Select to avo you sta	Sign me in automatica id signing in the next ti art the application.	ally 4. Click Sign In. ime	

Customizing your Profile

After which, you can proceed to customize your profile. There are two different ways to do so, either by manually entering the information or by importing the page from LinkedIn.

Click on My Eikon > My Profile and Directory

SEARCH NAME AND COMPANY			Christopher Smithson -
Profile Views	Christopher Smith	hson Wew Product Permissions Change Language Change Password Currently in equity research on the buy side, following a 10-year stint at a small boutique brokerage.	
	+ Add education GENERAL INFO		
		★ Indicates Primary Focus * Requires Asset Class	
		★ Buy Side Research Analyst * ×	
		★ Equities ×	
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Discovering your Workspace

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HOME ASSET CLASSES V COUNTR					Updated 07-Jun-2	016 17:43
ASSET CLASSES	Monitor and	d ana	alyse portfolios	SEARCH		
Equities	Click here to open the Routines app	and	select "Settings" to set up your portfolio	Indices	Stocks	
Indices	EQUITIES >			Futures	Options	
Index Futures	SHELL TO EXIT UP TO 10 COUNTRIES	S AFT	ER BG DEAL	Warrants	ETFs	
Volatility Indices	 LONDON, June 7 (Reuters) - Royal Dutch Sh its focus following its \$54 billion acquisition of 	iell will If BG G	exit oil and gas operations in up to 10 countries in a drive to deepen cost cuts and narrow iroup.	ADRS	Screener	
TR Indices	EU countries refuse to back new licence for g	lyphos	sate weed-killer	TOP EQUITY INDICES :		đ
Stocks	Trafigura profit falls, oil volumes reach record			Name		% Chng
Convertibles				🖶 DJ Industrial		+0.64 %
Islamic Equities				🖶 S&P 500		+0.49 %
Foreign Exchange	EPONT DACE N	Å		NASDAQ 100	4,523.63	
Money Markets		¥		🖶 NASDAQ	4,968.71	
Fixed Income	NOMINATION - AP AND NBC		NOMINATION - AP AND NBC	S&P/TSX Comp	14,276.16	
Commodities				🖶 Bovespa	50,431.80	
Funds	Shell to exit up to 10 countries after BG deal Car bomb targeting police in Istanbul kills 11, wounds 36		Shell to exit up to 10 countries after BG deal Car bomb targeting police in Istanbul kills 11, wounds 36	FTSE 100	6,319.38 🔺	+0.73 %
Real Estate	GLOBAL MARKETS-Soothing Fed sounds send stocks to 5-week high		GLOBAL MARKETS-Soothing Fed sounds send stocks to 5-week high	FTSE 100 eod		+1.03 %
Islamic Finance	COMMODITIES >	٥	REUTERS BREAKINGVIEWS >	de CAC 40	4,484.44 🔺	+1.38 %
EQUITY QUICK LINKS	INSIGHT-LURED BY HOPES OF EASY MONEY, AMATEUR		SAUDI REFORM PLAN DODGES MOST TAXING QUESTION	d DAX 30		+1.78 %
Economic Monitor	CHINESE COMMODITY TRADERS LOSE THEIR SHIRTS			der IBEX 🕓		+1.35 %
Economic Indicator Chart	LME warehouses poised for transformation on rent capping -sources		Shell puts post-merger momentum to good use	de FTSE MIB		+1.91 %
US Opinion Poll	China's oil stockpiling to boost tanker market – owners Torrential rains cause backlog at Brazil's sugar ports		Dixon: Fiscal union has no place in EU Brexit plan Soptify starts to resemble model it once disrupted	STOXX 50		+1.55 %
Equity League Tables	EV & MM \	ð		🖪 Nikkei 225	16,675.45 🔺	+0.58 %
Halts and Short Sell Restrictions		-	CLORAL MARVETS Asia stacka tica, dallar passo as Vallan graph lighta tick	🖶 Hang Seng	21,328.24 🔻	+1.42 %
Biggest Movers	FROM RBA	5	UPDATE 4-Oil prices stay close to 2016 highs on ebbing supply, softer dollar	d TR US Price Idx	187.29	+0.56 %
DealWatch (Japanese language)			UPDATE 2-Shell to exit up to 10 countries after BG deal	S&P/ASX 200		+0.20 %
Markets Research	EM ASIA FX-Yellen caution pushes Asia FX higher but sliding yuan limits gains Sterling recovers from 3-week lows after new Brexit polls		UPDATE 5-Clinton clinches Democratic presidential nomination - AP and NBC	🖶 Volatility Index		-3.96 %
StarMine Overview	CEE MARKETS-Currencies test multi-week highs, Budapest stocks rise	CROSS MARKETS				
StreetSight	MORE >		REUTERS NEWSLETTERS	TOP COMMODITIES >		đ
MONITORING	General News Economy		The Day Ahead	Name		% Chng
	Sports Central Banks & Global Economy		EMEA Morning Call			

Here is a list of Applications and functions that you are able to access from the Eikon Homepage.

- A. Thomson Reuters Eikon button. Click here to open apps or access menus such as user preferences.
- B. The Search box is powered by Autosuggest and Answers. Use it to find information or answers to your questions.
- C. Displays the current active quote, chart or news (shortcuts)
- D. Gives immediate access to Messenger, Favourites, and Alerts.

Tip: To customize your profile and view the most relevant home page, click *My Eikon > My Profile in the menu bar*.



Browsing by Asset Class or Countries from the Home Page

1			2				
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HOME ASSET CLASSES -	COUNTRIES V NEWS AN	ND RESEARCH * MY		SINSIDER TRADING *	FINANCIAL INSTITUTIONS *	Updated	07-Jun-2016 17:48 Refresh 🖪
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FIXED INCOME	Overview Instrumen	ts News and Events	Market Data and	Tools Market Reports	New Issues Library IFR	NIM League Tables Research	
BONDS	TOP BENCHMARKS			QUICK LINKS		RECENT NEWS	
GOVERNMENT	Name	Yield	Yld Net Chng	Bond Calculator BNDC		BONDS: Tight CITIC de	al widens in secondary
US MUNICIPALS	US 10Y Govt Bond	1.740	+0.017	Bond Search	$\langle \rangle$	07-Jun-2016 17:48 - li Americas: Brazil – Tem	FR per prioritises infra
NON-US MUNICIPALS	🖷 EU 10Y	0.082	-0.003	Rates Views	$\langle \rangle$	concessions	
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							-0.3
							-0

1M 6M 1Y 3Y 5Y 7Y 10Y

Browse by Asset Class from the Home Page

- 1. Click an asset class.
- 2. Click View real-time.
- 3. The related real-time app opens.

Tip: Whenever you see 📕 , click for real-time data

Browse Countries Information from the Home Page

- 1. Click on COUNTRIES from menu bar
- 2. Select the Country of interest
- 3. The related real-time app opens.
- 4. To change country of interest, repeat step 1 & 2



30Y

Find Data, Information and Answers to your Questions

The Search box is a good starting point for your workflow.

Instantly navigate to anywhere in Thomson Reuters Eikon using the Search box. Simply start typing what you want to find and Autosuggest will give you immediate feedback.



For example, start typing Singapore Airline in the Search box. Selecting SIAL.SI will take you to the indepth Company Overview including analysis tools. Access real-time data by clicking the Quote, News or Chart links in the upper right corner of your screen.

Also, you could type questions such as "What is Google's P/E?". Eikon Answers will display the company's current P/E ratios and provides links to further analysis tools.

Keyword types	Examples			
Company names or common abbreviations	Microsoft, Vodafone, ibm			
Descriptive terms	Comex copper, vodafone common stock			
 Standard Industry codes 	Ticker, ISIN, Custp, Sedol, WERT			
 Specific and partial codes 	US459200HJ3, MSFT			
 Ticker, coupon, and maturity 	VOD >+7.5%, VOD 2015			
 TBA syntax or agency names 	FNMA <9%, Fannie Mae TBA 2014, Ginnie Mae 1			
Country names for country guides	France, United Kingdom, Japan			



2. Applications

There are some key shortcuts that you can use to make Eikon easier for you to utilize.

F2: Quote List

හ 🔳 E	K Rates Quote List	JR=		Q							
	Name			Last	Pct.Chng	Net Chng	Close	Currency	+		
EUR=	Euro	1		1.1214	0.26 %	+0.0029	1.1185	USD			
GBP=	British Pound	1		1.4455	0.28 %	+0.0041	1.4414	USD			
JPY=		1	1	109.00							
CAD=		1	♠	1.3073							
AUD=		1		0.7225							
MYR=	Malaysia Ringgit	1		4.1430		0	4.1430	MYR			
CNY=	Chinese Yuan	1		6.5785	0.06 %	+0.0037	6.5748	CNY			
INR=		1		67.2450							
BRL=		1		3.5860							

F4: Quote

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F5: Refresh

To refresh any page you are viewing

F6: Max/Min

To minimize or maximize any open application. (e.g. quote app, charts in a document, linked document)



F9: News

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▼ ‡ ←	→ Q	EUR=			×	
Time		RICs	Headline			
04:45:49 PM		JPY= EURJPY=	《全球汇市》美元兑日四艘及两周低点,联储升息前录存在不确定性			
04:42:58 PM			DJ U.K. Construction PMI Falls to 51.2 in May Market Talk			
04:42:04 PM			Risks to global economy rising - PIMCO's Amey			
04:31:55 PM		JPY= EURJPY=	FOREX-Dollar hits 2-week low against yen			
04:26:38 PM		GBP1MO= GBP=	欧洲汇市:英镑徘徊在两周低位附近,受英国退欧公投担忧影响			
04:24:31 PM		.MIWO00000PUS	GLOBAL MARKETS-Stocks struggle as ECB and OPEC meetings loom			
04:14:35 PM		GBP= EURGBP=	DJ U.K. Construction PMI In Focus For GBP Market Talk EURGBP= GBP=			
04:07:35 PM		GBP1MO= GBP=	Brexit worries keep sterling pinned down to near 2-week lows			
03:53:56 PM		ABNd.AS	DJ ABN Stands Out of Benelux Bank Turnaround Market Talk ABNd.AS			
03:50:19 PM			DJ Interbank Foreign Exchange Rates At 03:50 EST / 0750 GMT			
03:14:50 PM		LCOc1 JPY=	GLOBAL MARKETS-Asian stocks struggle on growth concerns, yen hits Japan stocks			
03:08:17 PM	RSCH		🖪 Banca Intesa Serbia - Daily report 02.06.2016 (5 pages) - Banca Intesa Serbia			
03:01:23 PM			4CAST - Chart USD/CHF Update: Reasonably balanced this am			
02:50:26 PM			DJ Nordic Markets Seen Opening Slightly Lower Market Talk			
02:50:18 PM			DJ Interbank Foreign Exchange Rates At 02:50 EST / 0650 GMT			
02:28:15 PM			4CAST - FX Daily Outlook & Strategy, Europe 02 June			
02:25:14 PM			4CAST - Chart GBP/USD Update: Larger range still contains			
02:14:56 PM			DJ European Forex: Technical Analysis			
02:06:21 PM	CNBC	BARCL 8301.T	H Reuters Insider - The consequences of a Japan ratings downgrade			
		L LOUIS LINE L				

F10: Chart





View Related Information

Related features give you access to apps, views, news, or calculators that are relevant to the data you are currently looking at. The list of related features varies according to the instrument you are viewing and the app you are using.

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Setting Alerts to Track Market Movement



- 1. Click in the top right of any Thomson Reuters Eikon screen to open Alerts.
- 2. Click Create New Alert to set up new alerts.
- Choose the type of data to trigger the alert:
 E.g. Market data ; significant developments; street events; news; research; corporate filings
- 4. Fill in the alert criteria. For example, you can receive an alert when the instrument price hits a certain threshold.
- 5. Choose to receive alerts within Thomson Reuters Eikon or by email.
- 6. Click Set to create your alert. The alert indicator tells you how many alerts you have received.



App Library

To have an overview of the different applications available on the Eikon Excel platform, one can proceed to the App Library. Here, you can browse according to Asset Classes or different categories.

To get to this page, press the Eikon button on the toolbar and select the App Library shortcut.



Link Apps together in your workspace

• Apps can work alone, or you can link them together to harness the power and flexibility of Thomson Reuters Eikon. You can link apps within a Flex document, or link to pop-up windows so that they share data



1. Insert apps in your Flex document. For example, insert the Quote List, Option Watch, and News Apps.

2. Right-click any app in your Flex document, and choose *Link to*.

All open apps appear in the list, including pop-ups.

The source has a yellow background, the target (in this case a Quote pop-up) a green one.

3. Choose the app you want to link to.

Note: You can link from another app to a pop-up, but the pop-up cannot be the source app.



Add Apps to Your Document

Search or enter your command here	IBM ▼ 207.1500 +0 +0% USD 22:01 4/19/201						X
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Image: News ✓ Quick Charts Image: Calculator Image: Time & Sales Image: Time & Sales Image: Quote Line Image: Blended Order Book Image: Blended Order Book	uote <mark>≝</mark> Add <u>N</u> ews har <u>t</u> ⊯ Add Quote List ntion Watch ∰ Add Calculator	SpecTrade/Typ X197.8900 1265 PSE	Volume 1760 Spec.Vol 100 11:02	PCT ABNVOL 0.0005 % Blk.Vol L.Blocks	High Low	207.3800 Cls:NYS 18AP 207.1500 Yr.High:15MA 215.9000 Yr.Low: 12JU 181.8500	207.30 R13 Adj.Cls 207.1500 R13 L12
O Interactive Map More →	µd <u>k</u> Charts <u>A</u> dd other	50-Day Mov . Avg . 207 . 40920 150-Day Mov . Avg . 200 . 72426 200-DayMov . Avg . 199 . 18670	Price Price Price	L.Blocks 10-5 L.Blocks 50-1 L.Blocks > 100	ок оок к	10-Day Mov. Avg 3348016 25-Day Mov. Avg 3571167 50-Day Mov. Avg 3510016	. Vol .Vol .Vol

- 1. Click Insert.
- 2. Choose the app you want to add.

Tip: You can also insert any real-time app that you opened from the home page into your Flex document. Just click the pop-in/pop-out arrow in the upper right of the app.

Open Thomson Reuters Eikon in several windows

You can open several Flex documents and home pages in Thomson Reuters Eikon. You can also view several Flex documents and/or home pages at the same time:

Drag a Flex document/home page tab and drop it outside the current window. A new window opens with the selected tab. OR

Go to and then click File > New Window to display the home page in a new window. OR

Press Shift+F3 to open a new window.



Part 2: Cross Asset



1. Top News Application <TOPNEWS>

The Top News Application in Eikon would allow users to obtain a quick overview of the market news from both the main page as well as from different asset classes. From the top tab bar, the default page would be the "Front page" of the Top News app. However, from the different tabs, you could view news from the commodities markets, different companies and industries as well as by geographical zone.

While Top News provides objective news reporting, Views would provide users with opinionated based articles on certain topics.

In order to navigate to the following page,

In the Eikon Toolbar, search <TOPNEWS> in order to pull up the Top News Front Page as shown below.

Alternatively, on the Homepage, click the "News and Research" tab and select "Reuters Top News".





2. Economic Monitor

Users who are interested in the different economic news and events from a specific group of countries and markets would find the Economic Monitor Application useful. On the EM application, users can specify their set of countries by filtering them on the left hand bar.

From this, a list of Economic Events, Central Bank and Political Events as well as Government Debt Auctions would be generated.

Selecting any one event would pull up the related Reuters News at the bottom of the page.

In order to navigate to the Economic Monitor page,

In the Eikon Toolbar, search in order to open the Economic Monitor Application.



Country or Region Name	10	All Ev	ent T	ypes		Sea	rch It	ems 🗸		Update			
China (Mainland)		К.	зотн	INUL	E 20'	16, 16	5:47:3	35					📰 🔳 R
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🗹 🙍 Hong Kong		26		28	29	30				Local Date	Local		Event Name
🗾 🔍 Japan			July										
🗾 🔚 Singapore										30 Jun	06:40	٠	Japan Prime Minister Shinzo Abe will hold a second meeting with Japan's top economic policy
🖌 💽 South Korea										30 Jun	11:00	۲	South Korea Finance Minister Yoo II-ho will give a speech at a meeting of the American Chamb
🗹 💾 Taiwan									ō	30 Jun	17:00	•2	Ministry of Commerce press briefing on upcoming G20 trade ministers meeting. People's Repu
🗹 👯 United Kingdom									6 1	30 Jun	17:00		Central Bank of Taiwan holds monetary policy meeting
🗾 United States									51	30 Jun	19:30		European Central Bank will publish the minutes of June interest rate meeting
				12					5	30 Jun		-	U.S. Vice President Joe Biden will visit the Langston Hughes Community Health and Education
									51	26 Jun-1 Jul			The president of Bulgaria's National Assembly Tsetska Tsacheva will lead a visiting delegation
		24							F	27-30 Jun			Former Ukrainian Prime Minister Arseniy Yatseniuk visits United States (to June 30)
									51	1 Jul	03:20	32	Federal Reserve Bank of St. Louis President James Bullard gives presentation on the U.S. econ
									₽	1 Jul	15:15		European Central Bank board member Benoit Coeure participates in a roundtable discussion o
				4	Augus	st			5 1	1 Jul	18:00		European Central Bank chief economist Peter Praet speaks at Financial Times 'Festival of Fina
									F	1 Jul	23:00		Federal Reserve Bank of Cleveland President Loretta Mester speaks on the economic outlook
									8	1.101	23.00	1	Bank of England chief economist Andy Haldane talks about cashless society at Financial Times



3. Economics Application <EC>

Investors who adopt a top-down approach to investing would often want to analyze the overall economic situation of the country before choosing whether to invest in that market.

Hence, the **Economic** Application would provide a general overview of the market.

To get to this page, type **EC** in the Eikon Toolbar.

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HOME ASSET CLASSES V COUNTRIES V NEWS AND P	ESEARCH ▼ MY EIKON ▼ REUTERS INSIDER TRADING ▼	FINANCIAL INSTITUTIONS -										
ECONOMICS		2										
TOP NEWS												
	UK market sector wages and productivity											
YEN MOVES HURT PRICE TARGET SENDAL Japan, May 19 (Reuters)	• Werke more percentage crunges	World Guide News in Charts										
	· My Ann Ann											
GLOBAL MARKE IS-Asian shares poised for weekly loss, Fed talk lifts dollar		My Datastream Library										
TOKYO, May 20 (Reuters)		Macro Explorer Datastream Excel Samples										
Dudley joins chorus of Fed officials seeing rate hikes soon NEW YORK, May 19 (Reuters)		Datastream Chart Thomson Reuters/Ipsos Studio Consumer Sentiment										
U.S. economic data point to second-quarter GDP rebound WASHINGTON, May 19 (Reuters)	\$200 200 200 201 <td>Macro Explorer</td>	Macro Explorer										
ECB has no plan to cut deposit rate at present - Coeure FRANKFURT, May 19 (Reuters)		Sunfrancial Conv										
IMF says Greek debt relief needs long grace, maturity periods WASHINGTON, May 19 (Reuters)		ALPHANOW										
BoE's Vlieghe say can gauge impact of EU vote after 6												
Weeks LONDON, May 19 (Reuters)												
ECONOMIC EVENTS (TODAY)	REUTERS POLLS	THE ECONOMIST -										
Time Period Poll Actual Prior Add	POLL-Reuters BoC May 2016 pre-meeting poll results	Michael Moore's grand European tour										
Producer Price Index MM EE	19-May-2016 23:55:15 RTRS	20-May-2016 05:22:09 ECONST										
Today Apr. 0 0 0.8000 👼	POLL-Reuters BoC May 2016 pre-meeting poll results 19-May-2016 23:54:58 RTRS	What a difference a game makes 20-May-2016 05:22:08 ECONST										
Producer Price Index YY EE	TAKE A LOOK-Reuters polls on expert opinion from	Obituary: Daniel Berrigan SJ, priest, poet and anti-war										
Today Apr. 0 0 -2 0000 🕅	19-May-2016 21:49:55 RTRS	20-May-2016 05:22:08 ECONST										
13:00 2016	MORE POLLS 2 The Bank of England is right to intervene in the											

Through this page, one can look through

- Important news that occurred in the markets,
- Recent Reuters Polls and
- Keep track of main economic events which will be occurring on that day.



4. Macro Explorer Application <MACROX>

Within the Economics page, there is a specific application by the name of Macro Explorer <MACROX> which can provide the user with a good and useful visual overview of how the market looks.



Through this page, different countries could be selected by choosing them on the map or through the search bar at the side. The graphs at the bottom will display the different indicators of the macro-economic situations in the countries.

The box on the left is where other countries can be selected.

The box on the upper right allows different functionalities such as

- World Map
- Moving Grid
- Scatter Plot
- Table



5. Central Bank Poll <CBP>

The Central Bank Poll application would allow users to view a forecast of the central banks' likely interest rate, providing a long-term outlook on the bank's decision.

Most countries have only a long-term outlook where different analysts' opinions are collated and displayed in the form of a line chart. In addition to the Reuters Poll in blue, users can also add in lines depicting the max and min based on estimates as well as a mean and mode figure.

However, due to the high interest placed on the Fed Funds Target Rate, there is also a poll collected for those figures and hence, the US Federal Reserve's page also has a Fed Funds Rate estimate provided.

In the Eikon Toolbar, search **<CBP>** to open the application.





6. US FED Interest Rate Probability

For users who require more detailed information than just the figures from the CBP Application can refer to the following application for a more detailed probability breakdown of expected Fed rate hikes or cuts.

In the following application, the page shows the current target rate as compared to a historical figure. In addition to that, a table displaying the probable actions for the next month (e.g. cut or no change) would also provide a concise overview of how the Fed is likely to vote at the next meeting.

In the Eikon Toolbar, search **<US FED INTEREST>** and select the application from the drop down menu bar.

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			AND RESEARCH 👻 MY												
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			16-Dec-2	008	27-Jul-2	2016				🛃 FFM	16	JUN6			
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CUT	-0	.25%	1.8%		14-Dec-	2016	0.395			🗗 FFU	6	SEP6			
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27-Jul-2016	0.3705			98.2		0.0			0.0	0.0			0.0		0.0
21-Sep-2016	0.3855			92.4											
02-Nov-2016	0.3705			87.2											
14-Dec-2016	0.3878			80.9		12.4									
01-Feb-2017	0.4005					15.7									
MPLIED VS ACTUAL							2 HISTOR	RICAL IMPLIED E	BPS						
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USD1MD=	1M 0.80	0.90	US 2Y T-NOTE	0.640	0.6368	S.05bn S.05bn				G+150 area			GBP benchmark		
LIEDOMD-	214 0.52	0.50		E 0.7518 0.7492 30-Jun-2010		30-Jun-2016 15:18:36 FCT States raise das tax			States raise gas taxes ahead of July 4th holiday 30.00.2010 10:3			30-Jun-2016 16:21:33 IFR			



7. Economic Indicator Poll <ECOP>

Another poll that may be useful to users monitoring the different economic markets would be the Economic Indicator poll. Using this page, users are able to view estimates of different economic indicators of different markets.

By selecting the country as well as the indicator (e.g. Federal Budget), users can view the Reuters Poll (consolidated from different polls) as well SmartEstimate and the Actual figures. The line chart below shows how the estimates and polls have fared in the past as compared to the actual figures that have been reported.

In order to reach the following page,

In the Eikon toolbar, search <ECOP>.





8. Asset Allocation Poll <AAP>

The Reuters Global Asset Allocation poll is a monthly survey of recommended model global portfolio allocations from many of the world's top investment firms. Responses are collected from companies based in the United States, Continental Europe, the United Kingdom and Japan. The Global totals displayed are not weighed but are a straight average of regional allocations.

On this page, there is a consolidated "World" allocation for

- 1. Global Balanced to show the allocation between equities, bonds, alternatives, cash and property
- 2. Global Equity to show the allocation amongst different geographical areas for equities
- 3. Global Bonds to show the allocation amongst different geographical areas for bonds

Alternatively, you are able to view the same breakdown above for different countires, mainly Europe, Japan, United Kingdom and the United States.





9. Correlation Matrix <CORR>

The correlation matrix allows users to measure the change in different indicators (such as price, total return etc) of one asset against another for any one period.

Using this calculator, the correlation, R-squared, covariance, beta and alpha can be measured. For correlation in particular, a figure closer to 1 would indicate a higher amount of positive correlation. On the other hand, a figure closer to -1 would indicate a higher amount of negative correlation.

- 1. In the Eikon toolbar, search **<CORR>** in order to open the application.
- 2. Under "List Management", create a list of equities, indexes or other instruments you would like to compare.
- 3. In the "Main" page, adjust the following parameters
 - Periodicity: Daily etc.
 - Start Date
 - End Date
- 4. Adjust the lists X and Y and press "Calculate" in order to generate the results
- 5. Also, you can change the Statistics and the Fields if necessary

Correlation Matrix											
Regression Analysis [REGR] Average	Calculator [AVRO		ace Calculator [VOLS] List Monitor [LMON]	Pairs Calculator [PAIR]						
Correlation Matrix					3						
Periodicity: Daily Use Intermediary Date: Range From 01 Jul 2015 To 01 Jul	Start Date: End Date: 2016	1Y 曲 01 Ju 0D 曲 01 Ju Las	ul 2015 For Mi ul 2016 Transforma t Calculated at 17:09 (:	ssing Data: Ignore ation Rules: Ln Return 1 Jul 2016) 🖬 Calculate							
Main List Management											
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Matrix Summary Top Distribution											
Statistics: Correlation			_								
Modify Lists X: eq ▼ Y: eq ▼	AAPL.O 🔠	MSFT.O	GOOGL.O ## Trade Price(Clos								
AAPL.O 🔠 Trade Price(Clos	1.0000	0.6043	0.4444								
MSFT.0 # Trade Price(Clos	0.6043	1.0000	0.6166								
	0.1111	0.0100	1.0000								



10. Average Calculator <AVRG>

Using the Average Calculator application, users are able to compare the average prices or volatilities across different time periods for your specified list of instruments.

In order to pull up a similar list as shown below,

1. In the Eikon Toolbar, search **<AVRG>** to open the application

2. Under "List Management", specify the different instruments that you wish to search for.

Exit List					
MyListHHH					
	Type RIC Or Click an Icon for Formula	Name	Select Field	Adder	Scaling Factor
#1	The AAPL.O 🔎	APPLE INC	Trade Price (Close) 管	0.00 🖉	÷1.00 🖉
#2	🏂 🛛 MSFT.O 🔎	MICROSOFT CP	Trade Price (Close) 管	0.00 🖉	÷1.00 🖉
#3	fi: GOOGL.O 🔎	ALPHABET INC A	Trade Price (Close) 管	0.00 🖉	÷1.00 🖉

3. Here, you can view the average prices and volatilities over different time periods for the specified "Start Date" and "End Date" that you have chosen at the top of the page.

4. Also, different frequencies can be selected.

e 🚦	Average Calculator					⊡ 2 •€ ≡ _ ø ×
Forwa						Related Code: AVRG
A	verage Calculat	or: MyListH	нн		Watch Video 🜔 🕜	
	rorage earoanae	off my loan			Updated at 4:02:49 PM	
Li	st Name: 8. MyListHHH	Frequency: M	onthly 🔽 Start	Date: 01 Jan 2015 🛱	End Date: 04 Jul 2016 🛗 Reset Dates To Default	
0	urrency: Native 💽 Setting	s Calendar: N	one 🔽			
M	lain List Management					
Disp	lay: Prices	Volatilities	Raw Data	Decimals: Increase /	Decrease 🔲 Show No. Days 🗹 Show Details 🛛 Copy to Clipboard	
	Enter Setup	#1	#2	#3		
	RIC or Formula	HAPL.O	MSFT.O	GOOGL.O		
	Name	APPLE INC	MICROSOFT CP	ALPHABET INC A		
		LISD	Trade Price (Close)	Trade Price (Close)		
	Adder	0.55	0	0		
	Scaling Factor					
1	Jul 2016					
2	Jun 2016	18.3908	25.9981	20.9799		
3	May 2016	20.7397	20.7769	15.2357		
4	Apr 2016	28.8983	29.6403	25.1330		
5	Mar 2016 Feb 2016	23 2855	22.3343	27 4310		
7	lan 2016	43.9238	37.6102	32,8808		
8	Dec 2015	24,2203	23.3212	21.3182		
9	Nov 2015	23.4654				
10	Oct 2015	25.6755	36.1989	25.4744		
11	Sep 2015		28.2726			
12	Aug 2015	43.8086	36.9333	41.4973		
13	Jul 2015	24.9697	19.6463	55.8583		
14	Jun 2015	11.3386	15.1966	14.6895		
15	May 2015	22.0261	20.5050	16.9815		
17	Apr 2015 Mar 2015	21 9223	10 8848	20.9311		
18	Feb 2015	20,2706	13,2802	18.0580		
19	Jan 2015			29.2442		
<<	< 10f1 > >>					



11. World Clock

The World Clock application allows users to view the different time zones available as well as its respective equity indexes. This allows users who trade in different markets to monitor both the times as well as the market conditions.

In the Eikon Toolbar, search <**CLOCK**> and select from the drop down menu.

B World Clock	C					+ ≡ - □ ×
NEW YORK UTC-4		LONDON UTC+1 ×	PARIS UTC+2 X	BEIJING UTC+8 ×	TOKYO UTC+9 ×	SINGAPORE UTC+8 ×
04:35:0)З дм	09:35:03 🗛	10:35: 03 AM	04:35:03 №	05:35:03 №	04:35:03 №
.SPX 🗸	4 .09	.FTSE 🗸 🔺 1.02	.FCHI 🗸 👻 -5.21	.CSI300 🗸 🔺 50.50	.TOPX 🗸 🔺 7.53	.FTSTI 🗸 🔺

12. Key Stats <KEYST>

The KeyStats page allows users to compare a maximum of three different securities and to compare them across different valuation methods.

In the Eikon Toolbar, search <KEYST> and choose the three securities to compare.





Part 3: Foreign Exchange Market



THOMSON REUTERS

EIKON[®] Eikon shortcuts: **FX**

REAL TIME MO	DNITORING
ALT	Alert Manager
OPW	Option Watch
Q	Quote
QL	Quote List
QLI	Quote Line
SDB	Sidebar
TAS	Time & Sales
TICK	Ticker

NEWS	
FXBUZZ	FX Buzz
NEWS	News
TOPNEWS	Top News

CHARTING	
CHRT	Chart App
ECOC	Economic Indicator Chart
FXFC	FX Forecast Chart
FXVO	FX Volatility Chart
TEAC	Technical Analysis Chart
VOLC	Volatility Chart

ANALYTICS AN	ND CALCS
AVRG	Average Calculator
BRKD	Broken Dates
COPP	Currency Options Portfolio
COPS	Currency Options Strategy
COPT	Currency Options
CORR	Correlation Matrix
DEAN	Deposit Analysis
DEFO	Deposit vs FX Forwards Overview
FRAA	FRA Arbitrage Calculator
FRAP	FRA Pricing
FXBP	FX Spot Arbitrage
FXCM	FX Cross Matrix Calculator
FXCT	FX Carry Trade
FXCV	Best FX MM Curve
FXFT	FX Forwards from Futures
FXOC	FX Options Calculator
FXVE	FX Volatility Explorer
NDFX	Non-Deliverable Forwards Calculator
OISC	Overnight Index Swap
PARF	Par Forward Calculator
REGR	Regression Analysis
SPO	Swap Points and Outrights
SPOZC	Swap Points from ZC

MARKETS	
BGC	BGC Market Data Broker Guide
CIG	Currency Index Guide
EE	Economic Events
FXALL	Fxall
FXG	Foreign Exchange Guide
FXHEAT	FX Volume Heatmap
FXMM	FX & Money Views
FXOTCG	FX Options Guide
FXPOLL (e.g. "EUR= FXPOLL")	FX Polls View
FXTFOG	Foreign Exchange Traded Futures and Options Guide
HOL	World Exchange Holidays
HOME	Home page
ICAP	ICAP Guide
NDFO	Non-Deliverable Forwards and Outrights Guide
NDFV	NDFView
SPOTG	Spot Guide
TPB	Tullett Prebon Broker Guide



Chapter 3: Foreign Exchange Market

SEARCHES	
ANSWERS	Eikon Answers
CURVESRCH	Curves – Advanced Search
FXMMSRCH	Money/Foreign Exchange – Advanced Search
SRCH	Advanced Search
TICK	Ticker

HELP	
FAQ	Frequently Asked Questions
HELP	Online Help



1. Swap Points and Outrights <SPO>

The Swap Points and Outrights Calculator would enable users to search for the relevant swap points and corresponding outrights for specific currency pairs.

Using this application, users can also customise the specific spot and swap points in order to calculate the corresponding FX Outright value.

In the Eikon Toolbar, search **<SPO>** to open the application



- 1. Key in the currency pair at 1 (i.e. <USDSGD>)
- 2. Locate the necessary period from the first column (i.e. 3M for 3 months) There are 3 main bid-ask figures which would be of interest.

Figure	What it is	Alternative Methods to Obtain it
А	FX Spot Price	F4 > Search for spot price of currency e.g. <sgd=></sgd=>
В	FX Swap Points	F4 > Search for forward swap points/rates e.g. <sgdfwd=></sgdfwd=>
С	FX Outrights	F4> Search for <0#SGDF=> or type <sgdf=> and press F3</sgdf=>



Scaling Factor

In the previous screenshot, the resultant outright price of USDSGD was not the sum of the corresponding FX spot price and FX swap points. This is due to the scaling factor of the SGD.

How to find the scaling factor of a currency?

- 1. In Eikon, press F4
- 2. Type in the country name (i.e. <Singapore> and select <Background Info>)

en S	+ +	18.2 12.0	SGD/	BKGDI	NFO Q	uote	so	GD/BKC	DINFO	Q								20	2∃•€	≡	-	×
SING The acco	below below	N OL Ce V	OLLAR utline with g	BACK(es key genera	GROUN y Thoi ally a	D INF mson accep	Reu Reu ptec	ATION iters i rule	Singa Singa sin	pore the	Dol Fore	llar eign	in Exc	forma chang	ation ge &	SGD in Mone	/BKGD y mar	INFO kets				
=SP(Days Rec Dec)T==== s to S iproca imal F	Spot al Prec	t (Inver cisior	se to	o USD) 			= =Sk Int Sem Cur Fis	APS eres ni-An renc ced r	BASI t Ra nual y	IS== ate l,Ac	Swap tual	ps 1/365	===== 5 vs	6 mo	===== nths	SOR SOR SGD				
=FOR Scal (ie	RWARDS ling f scale	S=== Fact ed u	tor up by	4 dec	cimal	plac	 ces)	4	Flo Per Del	iod. imit	er	ate.					1	.6S0 -30Y =				
=DER Days	POSITS 5 to 1	S=== Depo	osit.				•••••		=Ci Peg Dei	ged.	able	Cont e	rols	s==== 	YES	S <pe< td=""><td>GGEDI</td><td>==== NF0> .YES</td><td></td><td></td><td></td><td></td></pe<>	GGEDI	==== NF0> .YES				
=GEN Dome Euro	NERAL= estic o Area	Day Day	ys Bas ays Ba	sis sis	 	===== 		365	5													
Mair Lost	n Inde t? Sel	ex « lect	<thoms< td=""><td>SONREL</td><td>UTERS s?<</td><td>===== > USER/</td><td> MEL</td><td> loney .P> Tł</td><td>Inde iomsor</td><td><===== < <m0 1 Reu</m0 </td><td>NEY></td><td>: > 5 Ph</td><td>ione</td><td>SGD I Supp</td><td>money port.</td><td>/ Ind <ph< td=""><td>===== ex<sg ONE/H</sg </td><td>D/1> ELP></td><td></td><td></td><td></td><td></td></ph<></td></thoms<>	SONREL	UTERS s?<	===== > USER/	 MEL	 loney .P> Tł	Inde iomsor	<===== < <m0 1 Reu</m0 	NEY>	: > 5 Ph	ione	SGD I Supp	money port.	/ Ind <ph< td=""><td>===== ex<sg ONE/H</sg </td><td>D/1> ELP></td><td></td><td></td><td></td><td></td></ph<>	===== ex <sg ONE/H</sg 	D/1> ELP>				

Here, Singapore has a scaling factor of 4 decimal places.

Hence, the following equation can be derived.

Deliverable FX Outrights = FX Spot Price + FX Swap Points / factor (if any)

Note:

Days to deposit (whether it is 1 or 2 days from trade date to spot date) can be found too.



2. Deposit Analysis <DEAN>

On the Deposit Analysis Calculator <DEAN>, users can find the implied deposit, deposit rates for different pairs of currencies.

First, Eikon uses certain terminologies.

Target Currency: This refers to the currency that is required at the end (the horizontal line of the previous diagram)

Via Currency: The currency that the implied deposit is carried through.

- 1. In the Eikon Toolbar, search <DEAN>
- 2. Select the target and via currency pair required
- 3. Match the period and the impled deposit for that particular date.

4. If required, you could select the broken date (e.g. 1M3D)

	eposit	t Ar	nalysis										102 -€ ≡	≣ _ C
posits	vs Fx	For	wards Over	view [DEFO]	FRA	Pricing [FRAP	Swap Po	oints and Outrig	hts [SPO]	Base Deposi	ts Quote	d Deposits	Relate	d Code: D
	_			-								0 2		
-		Sil	ngapor	e Dollar	·/U.	S. Dollar						0.20.04 414		
											Updated at	10:20:04 AM		
Targe	et CCY:	5	GD	Trade Da	ite: 261	May 2016 🛗	SGD S	pot	USD S	pot	SGD/USC	Spot		
Vi	ia CCY:	U	SD	Value Da	te: 31	May 2016	1.3757	1.3760	1.0000	1.0000	0.7267	0.7269		
SGD:	"Year B	Basis	:365 Calendar	SIN", USD: "Y	ear Basis:	360 Calendar:US	SA"							
Calcula	ation P	ara	ameters											
Swar	n To De	en	Dep To Sw	ap										
Sunat		CP.		1										
chard		ч и	d			amposito		Composito					Composito	
Stand	lard Pe	erio	ds		C	Composite		Composite				(Composite	
Stand	lard Pe	erio	ds End	Date	C Days	Composite SGD Swap	Points	Composite USD Deposit	▼ 1 360 ▼	SGD Implied	Deposit	Spread	Composite SGD Deposit	365 💽
Stand Perio	lard Pe od ON	erio	ds End 6 May 2016	Date 27 May 2016	C Days 1	Composite SGD Swap 0.0600	Points 0.1000	Composite USD Deposit 0.34	360 0.44	SGD Implied 0.50	Deposit 0.71	Spread -58.27	Composite SGD Deposit 0.02	365 🔽 0.03
Stand	lard Pe od ON TN	erio H	ds End 6 May 2016 7 May 2016	Date 27 May 2016 31 May 2016	0 Days 1 4	Composite SGD Swap 0.0600 0.1700	Points 0.1000 0.4700	Composite USD Deposit 0.34 0.42	360 0.44 0.50	SGD Implied 0.50 0.54	Deposit 0.71 0.82	Spread -58.27 17.14	Composite SGD Deposit 0.02 0.55	365 0.03 1.15
Stand	lard Pe od ON TN SN	erio H	ds 6 May 2016 7 May 2016 1 May 2016	Date 27 May 2016 31 May 2016 01 Jun 2016	0 Days 1 4 1	Composite SGD Swap 0.0600 0.1700 -1.5700	Points 0.1000 0.4700 2.0000	Composite USD Deposit 0.34 0.42 0.48	360 0.44 0.50 0.58	SGD Implied 0.50 0.54 -3.68	Deposit 0.71 0.82 5.89	Spread -58.27 17.14 -54.62	Composite SGD Deposit 0.02 0.55 0.50	365 0.03 1.15 0.62
Stand	lard Pe od ON TN SN SW	erio H	ds 6 May 2016 7 May 2016 1 May 2016 1 May 2016	Date 27 May 2016 31 May 2016 01 Jun 2016 07 Jun 2016	Days 1 4 1 7	Composite 5GD Swap 0.0600 0.1700 -1.5700 0.0000	Points 0.1000 0.4700 2.0000 1.2500	Composite USD Deposit 0.34 0.42 0.48 0.36	250 0.44 0.44 0.50 0.58 0.46	SGD Implied 0.50 0.54 -3.68 0.37	Deposit 0.71 0.82 5.89 0.94	Spread -58.27 17.14 -54.62 -9.25	Composite SGD Deposit 0.02 0.55 0.50 0.50	365 0.03 1.15 0.62 0.62
Stand Perio	lard Pe od ON TN SN SW 1M	erio H	ds 6 May 2016 7 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016	Date 27 May 2016 31 May 2016 01 Jun 2016 07 Jun 2016 30 Jun 2016	Days 1 4 1 7 30	Composite SGD Swap 0.0600 0.1700 -1.5700 0.0000 3.5000	Points 0.1000 0.4700 2.0000 1.2500 5.0000	Composite USD Deposit 0.34 0.42 0.48 0.36 0.40	250 0.44 0.50 0.58 0.46 0.50	SGD Implied 0.50 0.54 -3.68 0.37 0.72	Deposit 0.71 0.82 5.89 0.94 0.95	Spread -58.27 17.14 -54.62 -9.25 -14.72	Composite SGD Deposit 0.02 0.55 0.50 0.50 0.62	365 0.03 1.15 0.62 0.75
Stand Perio	lard Pe od ON TN SN SW 1M 2M	erio H H	ds 6 May 2016 7 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016	Date 27 May 2016 31 May 2016 01 Jun 2016 07 Jun 2016 30 Jun 2016 29 Jul 2016	0 Days 1 4 1 7 30 59	Composite SGD Swap 0.0600 0.1700 -1.5700 0.0000 3.5000 12.2500	Points 0.1000 0.4700 2.0000 1.2500 5.0000 18.2500	Composite 0.34 0.42 0.48 0.36 0.40 0.78	250 0.44 0.50 0.58 0.46 0.50 0.87	SGD Implied 0.50 0.54 -3.68 0.37 0.72 1.34	Deposit 0.71 0.82 5.89 0.94 0.95 1.70	Spread -58.27 17.14 -54.62 -9.25 -14.72 -65.31	Composite SGD Deposit 0.02 0.55 0.50 0.50 0.62 0.81	365 0.03 1.15 0.62 0.62 0.75 0.93
Stand	od ON TN SN SW 1M 2M 3M	erio H H	ds End 6 May 2016 7 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016	Date 27 May 2016 31 May 2016 01 Jun 2016 07 Jun 2016 30 Jun 2016 29 Jul 2016 31 Aug 2016	0 Days 1 4 1 7 30 59 92	Composite SGD Swar 0.0600 0.1700 -1.5700 0.0000 3.5000 12.2500 19.0000	Points 0.1000 0.4700 2.0000 1.2500 5.0000 18.2500 25.0000	Composite USD Deposit 0.34 0.42 0.48 0.36 0.40 0.78 0.63	350 0.44 0.50 0.58 0.46 0.50 0.87 0.73	SGD Implied 0.50 0.54 -3.68 0.37 0.72 1.34 1.19	Deposit 0.71 0.82 5.89 0.94 0.95 1.70 1.46	Spread -58.27 17.14 -54.62 -9.25 -14.72 -65.31 -38.99	Composite 5GD Deposit 0.02 0.55 0.50 0.50 0.62 0.81 0.87	365 0.03 1.15 0.62 0.62 0.75 0.93 1.00
Stand	lard Pe od ON TN SN SW 1M 2M 3M 6M	erio H W	ds End 6 May 2016 7 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016	Date 27 May 2016 31 May 2016 01 Jun 2016 07 Jun 2016 30 Jun 2016 29 Jul 2016 31 Aug 2016 30 Nov 2016	0 Days 1 4 1 7 30 59 92 183	Composite SGD Swag 0.0600 0.1700 -1.5700 0.0000 3.5000 12.2500 19.0000 40.0000	 Points 0.1000 0.4700 2.0000 1.2500 5.0000 18.2500 25.0000 45.0000 	Composite USD Deposit 0.34 0.42 0.48 0.36 0.40 0.78 0.63 0.93	350 0.44 0.50 0.58 0.46 0.50 0.87 0.73 1.03	SGD Implied 0.50 0.54 -3.68 0.37 0.72 1.34 1.19 1.53	Deposit 0.71 0.82 5.89 0.94 0.95 1.70 1.46 1.70	Spread -58.27 17.14 -54.62 -9.25 -14.72 -65.31 -38.99 -42.78	Composite 5GD Deposit 0.02 0.55 0.50 0.62 0.81 0.87 1.12	265 0.03 0.03 1.15 0.62 0.62 0.75 0.93 1.00 1.25
Stand Perio	lard Pe od ON TN SN SW 1M 2M 3M 6M 9M	erio H	ds End 6 May 2016 7 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016 1 May 2016	Date 27 May 2016 31 May 2016 01 Jun 2016 07 Jun 2016 30 Jun 2016 39 Jul 2016 31 Aug 2016 30 Nov 2016 28 Feb 2017	0 Days 1 4 1 7 30 59 92 183 273	Composite SGD Swag 0.0600 0.1700 -1.5700 0.0000 3.5000 12.2500 19.0000 40.0000 55.0000	Points 0.1000 0.4700 2.0000 1.2500 5.0000 18.2500 25.0000 45.0000 65.0000	Composite USD Deposit 0.34 0.42 0.48 0.36 0.40 0.78 0.63 0.93 1.23	 360 0.44 0.50 0.58 0.46 0.50 0.87 0.73 1.03 1.43 	SGD Implied 0.50 0.54 -3.68 0.37 0.72 1.34 1.19 1.53 1.79	Deposit 0.71 0.82 5.89 0.94 0.95 1.70 1.46 1.70 2.09	Spread -58.27 17.14 -54.62 -9.25 -14.72 -65.31 -38.99 -42.78 -69.24	Composite 5GD Deposit 0.02 0.55 0.50 0.50 0.62 0.81 0.87 1.12 1.18	255 0.03 0.03 1.15 0.62 0.62 0.75 0.93 1.00 1.25 1.31
Stand	lard Pe od ON TN SN SW 1M 2M 3M 6M 9M 1Y	erio H W	ds End 6 May 2016 7 May 2016 1 May 2016	Date 27 May 2016 31 May 2016 01 Jun 2016 07 Jun 2016 30 Jun 2016 39 Jul 2016 31 Aug 2016 30 Nov 2016 28 Feb 2017 31 May 2017	0 Days 1 4 1 7 30 59 92 183 273 365	Composite SGD Swag 0.0600 0.1700 -1.5700 0.0000 3.5000 12.2500 19.0000 40.0000 55.0000 74.0000	Points 0.1000 0.4700 2.0000 1.2500 5.0000 18.2500 25.0000 45.0000 65.0000 83.0000	Composite USD Deposit 0.34 0.42 0.48 0.36 0.40 0.78 0.63 0.93 1.23 1.27	250 0.44 0.50 0.58 0.46 0.50 0.87 0.73 1.03 1.43 1.37	SGD Implied 0.50 0.54 -3.68 0.37 0.72 1.34 1.19 1.53 1.79 1.83	Deposit 0.71 0.82 5.89 0.94 0.95 1.70 1.46 1.70 2.09 2.00	Spread -58.27 17.14 -54.62 -9.25 -14.72 -65.31 -38.99 -42.78 -69.24 -60.65	Composite 5GD Deposit 0.02 0.55 0.50 0.62 0.81 0.87 1.12 1.18 1.25	255 0.03 0.03 1.15 0.62 0.62 0.75 0.93 1.00 1.25 1.31 1.37
Stand	lard Pe od ON TN SN SW 1M 2M 3M 6M 9M 1Y 2Y	erio H	ds End 6 May 2016 7 May 2016 1 May 2016	Date 27 May 2016 31 May 2016 01 Jun 2016 07 Jun 2016 30 Jun 2016 31 Aug 2016 31 Aug 2016 38 Feb 2017 31 May 2017 31 May 2018	0 Days 1 4 1 7 30 59 92 183 273 365 730	Composite SGD Swag 0.0600 0.1700 -1.5700 0.0000 3.5000 12.2500 19.0000 40.0000 55.0000 74.0000 107.0700	Points 0.1000 0.4700 2.0000 1.2500 5.0000 18.2500 25.0000 45.0000 65.0000 83.0000 191.4400	Composite USD Deposit 0.34 0.42 0.48 0.36 0.40 0.78 0.63 0.93 1.23 1.27 1.77	260 260 0.44 0.50 0.58 0.46 0.50 0.87 0.73 1.03 1.43 1.37 1.87	SGD Implied 0.50 0.54 -3.68 0.37 0.72 1.34 1.19 1.53 1.79 1.83 2.20	Deposit 0.71 0.82 5.89 0.94 0.95 1.70 1.70 2.09 2.00 2.62	Spread -58.27 17.14 -54.62 -9.25 -14.72 -65.31 -38.99 -42.78 -69.24 -60.65 -109.78	Composite 5GD Deposit 0.02 0.55 0.50 0.62 0.81 0.87 1.12 1.18 1.25 1.25	355 0.03 1.15 0.62 0.62 0.75 0.93 1.00 1.25 1.31 1.37 1.37


3. Non Deliverable Forwards <NDFX>

Using the Non Deliverable Forwards Calculator, users can calculate the outrights for non deliverable contracts.

- 1. In the Eikon Toolbar, search <NDFX>
- 2. Key in the Base and NDF Currency as indicated below (i.e. for USDKRW, USD is the base currency and KRW is the NDF currency, where the profiting party will receive the profit in USD terms at the end of the contract.
- 3. Look under the <USD/KRW Outrights> for the price of the FX NDF

However, one should note that non deliverable forward contracts are not available for all currencies. Hence, users can utilise the dropdown menu for the NDF Currency in order to choose the currency pair.

å	🖲 Non Deliverat	ole Forwards												82 € ≡	×
Ň	IDF Guide Page D		[DEAN] Swaj	p Points and O	utrights	[SPO]								Related	Code: NDFX
	💷 🕅 U.S.	Dollar / K	orean W	on							gs 🜔 🦿				
		Bollar / I		UII						Update	d at 3:13:52 P	м			
	Base Currency:	ISD Trade	Date: 12 May 20)16 曲	USD	Spot	KRW Spot	(Offshore)		JSD/KRW Sp	ot				
	NDF Currency: K	RW Value	Date: 16 May 20		1.0000	1.0000	1165.4000	1165.7000	116	5.4000	1165.7000				
-		8411													
	Calculation Parame	ters													
	Main FRAs														
l	Standard Periods			NDF PIPs	NDFOR:	NDF Outrights	Ŧ								
						-		•	•			•			
	Period	USD/KRW	/ Dates	Fixing Date	Days	KRW Ou	tright	USD Depo	sit	KRW Dep	osit	USD/KRW Sw	rap Points	USD/KRW (outrights
	SW	16 May 2016	23 May 2016	19 May 2016	7	1,165.400000	1,166.000000	0.270	0.400	0.274	1.748	0.0000	30.0000	1,165.400000	1,166.000000
	1M	16 May 2016	16 Jun 2016	14 Jun 2016	31	1,166.000000	1,166.600000	0.590	0.690	1.205	1.609	60.0000	90.0000	1,166.000000	1,166.600000
	2M . W	16 May 2016	18 Jul 2016	14 Jul 2016		1,166.600000	1,167.300000	0.720	0.820	1.327	1.628	120.0000	160.0000	1,166.600000	1,167.300000
	3M	16 May 2016	16 Aug 2016	11 Aug 2016	92	1,167.070000	1,167.870000	0.770	0.870	1.350	1.622	167.0000	217.0000	1,167.070000	1,167.870000
	6M	16 May 2016	16 Nov 2016	14 Nov 2016	184	1,168.070000	1,168.970000	0.940	1.040	1.410	1.614	267.0000	327.0000	1,168.070000	1,168.970000
	9M	16 May 2016	16 Feb 2017	14 Feb 2017	276	1,168.070000	1,169.070000	1.090	1.290	1.411	1.694	267.0000	337.0000	1,168.070000	1,169.070000
		16 May 2016	16 May 2017	12 May 2017	365	1,168.120000	1,169.120000	1.260	1.350	1.514	1.666	272.0000	342.0000	1,168.120000	1,169.120000
	2Y	16 May 2016	16 May 2018	14 May 2018	730	1,163.550000	1,165.250000	1.580	1.680	1.520	1.683	-185.0000	-45.0000	1,163.550000	1,165.250000
4	NDS			NDS :	Source:	ICSG									





4. FX Top of Book <TOB>

An application which enables users to view different currency pairs as well as their corresponding spot and forwards is the FX Top of Book **<TOB>** Application.

In the Eikon Toolbar, search **<TOB>**.

Press in order to add new profiles (groups of currencies) or different currencies into a group.

← → 🧕 FX Top of Bo	ook								C ≡ _ □ ×
Default	~	<							۵
EUR.USD (14:09:08)	S	pot 🗿 📊	JPY.USD (:)		FWD 💽 📊	SGD.USD (14:0		Spot 🜒 📊	
Sell EUR	Buy	EUR	Tenor	Bid	Ask	Sell SGE) E	luy SGD	
1.10	1.	10	Spot	0.0095880	0.0095900	0.741	(0.741	
62-	C	1	том			60			
052	64	49	SN			60	0 6	500	
			1W						
GBP.USD (14:09:08)	S	pot 💿 📊	AUD.SGD (14:09		Spot 🕢 📊	CHF.USD (14:0		Spot 🕢 📊	
Sell GBP	Buy	GBP	Sell AUD		Buy AUD	Sell CH	-	Buy CHF	
1.32	1.3	33	1.02		1.02	1.012	2 1	.012	
99 7	03	Зз	35	0 4	00	30	o 5	50 0	
KRW.USD (::)	F١	ND 🕢 📊	CNY.USD (::)		FWD 🕦 📊	CAD.USD (::-		FWD 🜒 📊	
Tenor				Bid			Bid		
Spot 0.00	08714	0.0008730	Spot	0.1496	0.1496	Spot	0.765 20 0	0.765 50 0	
ТОМ			том			том			
SN			SN			SN			
1W			1W			1W			
EUR.SGD (14:09:07)	S	pot 🗿 📊	KRW.SGD (::		FWD 🗿 📊	KRW.JPY (::		FWD 🗿 📊	
Sell EUR	Buy	EUR	Tenor	Bid	Ask			Ask	
1.49	1.4	49	Spot	0.0011745	0.0011774	Spot	0.09090	0.09100	
12	4 (ТОМ			ТОМ			
130		20-	SN			SN			
			1W			1W			

Alternatively select is for the following view of a table of spot and forward figures for the currencies within the profile group.

$\leftrightarrow \Rightarrow$ 🔞 FX Top of Book												
Default 🖂 🧮												
CCY Pair	Bid	Ask										
▼ EUR.USD	1.10 58 0	1.10595										
Spot	1.10580	1.10610										
том	0.28	0.38										
SN	1.03	1.08										
1W	2.42	2.8										
2W	5.24	5.71										
1M	12.6	12.89										
2M	25.13	25.53										
ЗM	39.92	40.57										
6M	82.95	83.65										
9M	125.88	127.83										
1Y	170.61	173.2										
18M	264.02	271.89										
2Y	370.5	380.5										



5. FX Options Calculator <FXOC>

For calculating the option premium costs for:

- 1. Vanilla
- 2. Barrier
- 3. European Digital
- 4. Touches
- 5. Average
- 6. Lookback
- 7. Forward Start
- 8. Compound
- 9. Chooser
- 10. Vanilla Strategy
- 11. Multi-Leg Strategy (User Defined Strategy + Strip Builder)

Users are able to utilise the FXOC in order to find the option premium in a similar way as to how to utilise COPT.

$d^{\mathfrak{P}} \leftarrow \rightarrow \blacksquare FX \text{ OPTIONS CALCULATOR}$											
USDJPY	0 102.5100	102.5400	•								
Jul 01, 2016	🛗 Spot Date Jul 0	5, 2016									
Vanilla	~										
▼ OPTION TERMS											
Deal Type	Buy	0									
Expiry Tenor / Date 🖸	1M Aug	03, 2016 🛗 33	d								
Delivery	Aug 05, 2016	iii 31	d								
Style	European	0									
Call/Put	USD 0	Call 🕕									
Strike	102.3447										
Notional	USD 🕕	1,000,000									
▼ MARKET DATA											
ATM Vol (%)	13.188	13.788 0									
RR (%) 10D O	-3.191	-1.941 0									
BF (%) 10D	1.150	1.900									
Fwd Points ()	-9.8000	-9.4200									
USD Depo (%)	0.750	0.850									
JPY Depo (%)	-0.361	-0.218									
▼ PRICING	Black and Scho	les \vee	1								
Volatility (%)	13.188	13.788									
Premium USD 🕕	16,090	17,060									
Premium Price (%)	1.6090	1.7060									
Premium Date	Spot 🕕 Ju	ıl 05, 2016									
Delta (%)	Spot 🕕 🕄	50.119									
Delta Notional (USD)	501,195										
Vega (USD)	1,197	0									

In the Eikon Toolbar, search <FXOC>

Adjust the following settings:

- 1. Currency Pair
- 2. Type of Strategy (e.g. Vanilla)
- 3. Buy or Sell
- 4. Expiry or Tenor
- 5. European or American
- 6. Call or Put

Note that the ATM Strike is by default the FX Outright at the end of the tenor.



Strip Builder

In order to build a series of options, users can utilise the strip wizard function in order to repeat the same option over and over again.

For example, using the previous Vanilla option, we wish to repeat this for 12 times every month.

- 1. Select the Strip Builder through Multi-leg strategy>Strip Builder
- 2. In the following page, adjust the number of expires and the repetition frequency.

STRIP WIZARD			×
Define expiries as	Fived Dates	•	
First Expiry	Aug 03, 2016	Ē	
Repeat every	1		Month 🗸
Total # of expiries ①	12		
Observe	Week-ends	0	
Date moving convention	Modified following	~	
End of month convention	Last day of month	0	
		С	ancel OK

3. The following page will appear, with a series of options being repeated consecutively.

c ⁰ ← → 🚆 FX OP	TIONS CALCULA	TOR											C ≡	_ @ ×
USDJPY C	102.5100	102.5900	0											
Jul 01, 2016	Spot Date Jul	05, 2016												
Strip Builder	~			Leg 1		×	Leg 2			Leg 3		8	Leg 4	
▼ OPTION TERMS														
Deal Type			6	Buy		0	Buy			Buy			Buy	
Option Type				Vanilla			Vanilla			Vanilla			Vanilla	
Expiry Tenor / Date 🕒				1M Au	g 03, 2016 🛛 🛗	33d	66D Sep	05, 2016 🛗	66d	3M Oct	03, 2016 🛗	94d	4M N	ov 03, 2016
Delivery				Aug 05, 2016	Ē		Sep 07, 2016	ä	64d	Oct 05, 2016	Ë	92d	Nov 07, 201	6
Style			6	European		•	European			European			European	
Call/Put			6	USD	Call	0	USD			USD			USD	O Call
Strike			6	102.3695			102.3695			102.3695			102.3695	
Notional			6	USD 🕚	1,000,000			1,000,000		USD 0	1,000,000			1,000,000
MARKET DATA														
ATM Vol (%)				13.188	13.788	0	12.399	12.849	0	12.075	12.525	0	11.860	12.310
RR (%) 10D 0				-3.191	-1.941	0	-4.443	-3.151	0	-4.746	-3.196	0	-4.636	-3.277
BF (%) 10D				1.150	1.900	0	1.471	2.310	٠	1.612	2.612	0	1.758	2.604
Fwd Points ①				-9.7800	-9.4800	٠	-20.6545	-20.1083	0	-34.5000	-33.5000	0	-45.3900	-44.4900
USD Depo (%)				0.750	0.850	0	0.815	0.919	0	0.960	1.160	0	0.930	1.030
JPY Depo (%)				-0.358	-0.225	0	-0.319	-0.187	0	-0.359	-0.123	0	-0.348	-0.224
▼ PRICING				Black and Sch	oles	~	Black and Sch	oles	\sim	Black and Sch	oles	\sim	Black and Se	choles
Volatility (%)				13.188	13.788	0	12.346	12.794	0	11.987	12.430	0	11.748	12.190
Position	Rec	Pay	0											
Premium USD ()	344,136	372,362	0	15,971	17,181	0	20,505	21,852	0	22,992	24,804	0	25,703	27,473
Premium Price (%)				1.5971	1.7181	0	2.0505	2.1852	٠	2.2992	2.4804	0	2.5703	2.7473
Premium Date	Spot 🕕 J	lul 05, 2016		Spot 0	Jul 05, 2016		Spot	Jul 05, 2016		Spot 0	lul 05, 2016		Spot 0	Jul 05, 2016
Delta (%)	Spot			Spot 0	50.338		Spot 0	49.098		Spot 🕕	48.267		Spot 0	47.478
Delta Notional (USD)	5,573,618			503,375			490,982			482,665			474,780	
Vega (USD)	33,767		0	1,197			1,693			2,019			2,327	
 ALL GREEKS 														
Gamma (USD)	563,218		0	90,999			68,271			58,246			50,995	
Theta (USD)	-1,081		0	-236			-150			-118			-98	
Vanna (USD)	35,758		0	-316			634			1,320			2,010	
Volga (USD)	689		0	5			-9			-15			-11	
Rho (USD)	30,013		0	455			888			1,243			1,626	
Solve for													Last Un	date : 17:20:54
													2001.04	



4. By default, the calculator would synchronise all the strike prices to the same price. However, users

are able to adjust this, by clicking on the for button at the strike row.

5. This would cause the strike prices to unsynchronise and will now follow the FX outright price at each of the expiry dates.

do ← → 👫 FX OP	TIONS CALCUL	ATOR											G	≡ _ ø ×
USDJPY C	102.5200	102.6000	0											
Jul 01, 2016	Spot Date Jul	05, 2016												
Strip Builder	~			Leg 1		×	Leg 2		×	Leg 3		×	Leg 4	
▼ OPTION TERMS														
Deal Type			്	Buy		0	Buy			Buy			Buy	
Option Type				Vanilla			Vanilla			Vanilla			Vanilla	
Expiry Tenor / Date 🕲				1M Au	g 03, 2016 🛙 🏥	33d	66D Sep	p 05, 2016 🛗	66d	3M Oct	03, 2016 🛗	94d	4M	Nov 03, 2016
Delivery				Aug 05, 2016	i		Sep 07, 2016	Ê	64d	Oct 05, 2016	藟	92d	Nov 07, 2	016
Style			6	European		0	European			European			European	
Call/Put			6	USD	Call	0	USD	Call		USD) Call		USD	O Call
Strike				102.3793			102.2084			102.0222			101.855	5
Notional			6	USD 🕕	1,000,000		USD 🕕	1,000,000		USD 0	1,000,000		USD	1,000,000
• MARKET DATA														
ATM Vol (%)				13.188	13.788	0	12.399	12.849	0	12.075	12.525	0	11.860	12.310
RR (%) 10D O				-3.191	-1.941	0	-4.443	-3.151	0	-4.746	-3.196	0	-4.635	-3.277
BF (%) 10D				1.150	1.900	0	1.471	2.310	0	1.612	2.612	0	1.758	2.604
Fwd Points ()				-10.1500	-9.1500	0	-20.9528	-19.8990	0	-34.1900	-33.5900	0	-45.4000	-44.5000
USD Depo (%)				0.750	0.850	0	0.815	0.918	0	0.950	1.150	0	0.930	1.030
JPY Depo (%)				-0.400	-0.187	0	-0.336	-0.175	0	-0.357	-0.136	0	-0.348	-0.225
▼ PRICING				Black and Sch	oles	\sim	Black and Sch	oles	\sim	Black and Sch	oles	~	Black and	l Scholes
Volatility (%)				13.188	13.788	0	12.397	12.847	0	12.075	12.525	0	11.860	12.310
Position	Rec	Pay	0											
Premium USD 🕕	403,603	433,860	0	15,954	17,198	0	21,396	22,783	0	24,870	26,714	0	28,427	30,255
Premium Price (%)				1.5954	1.7198	0	2.1396	2.2783	0	2.4870	2.6714	0	2.8427	3.0255
Premium Date	Spot 0	Jul 05, 2016		Spot (1)	Jul 05, 2016		Spot 🕕 .	Jul 05, 2016		Spot	lul 05, 2016		Spot	Jul 05, 2016
Delta (%)	Spot			Spot 0	50.369		Spot	50.241		Spot	50.270		Spot	50.052
Delta Notional (USD)	5,993,003			503,686			502,413			502,700			500,525	
Vega (USD)	33,588		0	1,197			1,690			2,014			2,319	
 ALL GREEKS 														
Gamma (USD)	549,267		0	90,992			67,741			57,400			50,012	
Theta (USD)	-1,075		0	-237			-150			-118			-97	
Vanna (USD)	-4,969		0	-339			-324			-427			-306	
Volga (USD)	395		0				9						15	
Rho (USD)	32,901		0	455			908			1,295			1,714	
					_									
Solve for														Update : 17:21:44





6. FX Volatility Explorer <FXVE>

Here, using the FX Volatility Explorer, users are able to view the FX implied volatility smiles (Volatility against Delta) at different expiries. Furthermore, the spot probabilities are provided in the second tab, where the different probabilities as well as the implied probability distributions are plotted. Here, the discrepancy between the implied distribution curve and the log-normal distribution curve, especially at the lower delta values would give rise to the "fat-tail effect" or the smile at the two ends of the implied volatility curve.

However, one should note that should the "fat tail effect" only occurs if the probability distribution of the implied and log-normal distribution differs. If not, a "smirk" like curve as seen below would be presented.

In order to utilise the **<FXVE>** application,

- 1. In the Eikon Toolbar, search <FXVE>
- 2. Choose your currency pair and view the different tenors and deltas in order to obtain the implied volatility of the option premium necessary.





7. Swap Data Repository View <SDRV>

SDRV is a reporting tool for OTC trades reported by financial institutions within the USA. The toll pulls in all declared swaps and options and this allows users to swap on all asset classes.

Information on this page is sourced from two repositories:

- DTCC: The Depository Trust and Clearing Corporation. It is a US-based post-trade financial services company which provides clearing and settlement services to the financial markets.
- 2. CME: Chicago Mercantile Exchange

It trades commodities and financial instruments using the open outcry format and the electronic trading through Globex.

In order to utilise the following page,

In the Eikon Toolbar, search for <**SDRV**> and choose from the different asset classes in order to view the trades available.

One way to view all the trades for a specific currency would be to select on the Notional Currency 1 or 2 to sort the results obtained.

$e^{2} \leftarrow \rightarrow 33$ SDR VIEW $C \equiv \times$													
SDR Viewer Weekly Volumes TimeZone: UTC Help Report a problem													
🗮 🕍 🐮 🔟 Asset Class: FX Op							1-200 of 2626	rows Prev Next					
CRITERIA		K Hide Filters 🔿 Hide		C = 1									
Trade Date/Time Custom Jul 07, 201		Trade Date/Time 🔹	Ntnl CCY1	Ntnl Amt1	Ntnl CCY2	Ntnl Amt2	Strike	Transaction Type					
Strike Between 0 and 10000		2016-07-07 23:57:21						TRADE					
		2016-07-07 23:57:21						TRADE					
Status = ACTIVE		2016-07-07 23:57:11						TRADE					
		2016-07-07 23:57:11						TRADE					
Add New Criteria		2016-07-07 23:24:58	USD		JPY	510	102	TRADE					
		2016-07-07 23:17:36	GBP	434,783	USD	500,000	1.15	TERMINATION					
ALERTS		2016-07-07 23:16:06	GBP	869,565	USD	1,000,000	1.15	TERMINATION					
Add New Linklicht Oritoria	_	2016-07-07 23:14:14	GBP	277,778	USD	350,000	1.26	TERMINATION					
Add New Highlight Criteria		2016-07-07 23:11:44	EUR	10,000,000	USD	11,000,000	1.1	TERMINATION					
		2016-07-07 23:09:12	GBP	5,223,881	USD	7,000,000	1.34	TERMINATION					
		2016-07-07 22:59:13	USD	11,000,000	CLP	7,535,000,000	685	TRADE					
		2016-07-07 22:58:12	USD	3,000,000	CLP	2,055,000,000	685	TRADE					
		2016-07-07 22:50:50	USD	440,000	JPY	42,240,000	96	TRADE					
		2016-07-07 22:15:01	USD	61,000,000				TRADE					
		2016-07-07 22:06:33	USD	66,000,000				TRADE					
		2016-07-07 22:01:45	AUD	100,662,252	USD	76,000,000	0.755	TRADE					
		2016-07-07 21:56:21	USD	30,000,000	MXN	565,350,000	18.845	TRADE					
		2016-07-07 21:50:23						TRADE					
		2016-07-07 21:49:20	USD	33,000,000	JPY	2,970,000,000	90	TRADE					
		2016-07-07 21:49:18	USD	59,000,000	JPY	5,310,000,000	90	TRADE					
		2016-07-07 21:24:05						TRADE					
		2016-07-07 21:19:31	AUD	150,000,000	JPY	11,340,000,000	75.6	TERMINATION					
		2016-07-07 21:19:15	AUD	150,000,000	JPY	11,340,000,000	75.6	TERMINATION					
		2016-07-07 21:19:06	AUD	95,000,000	JPY	6,745,000,000	71	TRADE					
		2016-07-07 21:19:06	AUD	100,946,372	JPY	8,000,000,000	79.25	TRADE					
		2016-07-07 21:18:29						AMENDMENT					
		2016-07-07 21:16:34	USD	61,000,000				TRADE					
		2016-07-07 21:12:39						AMENDMENT					
		2016-07-07 21:03:21	USD	380,000		0		AMENDMENT					



8. Currency Performance/ Value Tracker <FXPT>

Using the Currency Performance/ Value Tracker application, users can compare how a specific currency performed historically and currently. While the 3 months implied volatility implies the market's sentiments on the currency pair currently, the 3 months realised volatility is the traded volatility 3 months ago.

Hence, comparing the two figures could be beneficial to an options buyer as to whether they should buy or sell an option right now.

In the Eikon Toolbar, search **<FXPT>**.

←→ 📓 Currency Performance/Value Tracker C = _ 🕫													
leat map Outli	ers Performers	Overview Abo	ut				U	pdated 08-Jul-2016	5:43 PM Refresh	🖌 Show Setting			
MIN										MAX			
ISDCAD and 64	more	\checkmark								Ę			
Currency	Spot				3M Realized Vol	6M Realized Vol	1Y Realized Vol	3M Risk Reversal skew	6M Risk Reversal skew	1Y Risk Reversal skew			
USDCAD	1.30		9.70		9.36	10.95		1.13	1.23	1.30			
USDCHF	0.98	8.24	8.85	9.22	8.05	8.25	9.21			-1.02			
USDJPY	100.69	12.85	12.45	11.90		13.13	10.85	-2.63	-2.60	-2.52			
USDNOK	8.50	12.01	12.21	12.34	14.34	13.02	12.39	1.25	1.54	1.75			
USDSEK	8.56		10.29		11.84	10.31	10.75	1.20	1.20	1.35			
GBPUSD	1.29	13.80	13.30	12.76	20.64	16.45	12.73	-2.21	-2.41	-2.58			
NZDUSD	0.73	13.05	13.15	13.25	13.87	14.09		-1.46	-1.76	-2.08			
AUDUSD	0.75	11.71	11.95	12.25	13.51	13.23	12.25	-1.55	-1.85	-2.15			
EURUSD	1.11	9.32	9.65		9.45			-1.40		-1.86			
EURAUD	1.47	10.85	11.05	11.30	9.82	11.57	13.38	0.96	1.23	1.70			
EURCAD	1.44	9.78	10.09	10.47	8.25	10.84	12.03	0.17	0.20	0.25			
EURCHF	1.08	6.25	6.80	7.00	5.81	5.06	5.48		-2.10	-2.40			
EURGBP	0.85	12.40	12.05	11.76		13.73	11.87	1.77	1.76	1.82			
EURJPY	111.45	14.00	13.65	13.30	17.66	14.29	11.71	-3.15	-3.35	-3.50			
EURNOK	9.41	8.70	8.85		8.17	8.94	9.77	1.13	1.32	1.49			
EURNZD	1.53	11.65	11.61	12.18	10.60	11.53		0.79	1.07	1.57			
EURSEK	9.48	6.60	6.91	7.17	6.08	5.93	6.40	0.69	0.71	0.75			
GBPAUD	1.72	13.35	13.22	13.45	18.12		13.18	-1.55	-1.25				
GBPCAD	1.69	12.43	12.20	11.90	17.89	14.77	12.33	-2.13	-2.13	-2.15			
GBPCHF	1.27	13.21	12.94	12.76	21.11	16.65	13.47	-3.05	-3.08	-3.13			
GBPJPY	130.40	18.63	17.38	16.30	33.11	25.46	19.05	-4.33	-4.58				
CHFJPY	102.76	13.40	13.05	12.68	16.06	13.16	10.90	-1.35	-1.40	-1.48			
AUDCAD	0.98	8.68	8.82	8.95	9.07	8.68	9.07	-0.38	-0.50	-0.50			
	0.74	11.44	11.96	12.35	12.49	13.24	14.00	-2.08	-2.29	-2.60			

For example,

Here, the 3M implied volatility for USDCAD is 9.69 while the 3M realised volatility is 9.36.

Hence the currency pair USDCAD is currently more volatile as compared to 3M ago.





Part 4: Money Market



1. Rates View Money Market < RVMM>

The Rates Views and Money Market pages enable users to have an overview of all different information commonly used in the money market.

For example, here key money market rates as well as basic swaps and interest rate forwards for different tenors could be found.

In the Eikon Toolbar, search **<RVMM>** in order to open the application.

One can also search which country or sector they would like to view in particular.

co ← →				Q	8	Dash	board												G	= -	. 🗆 🗙
Rates Sp	read M	latri	x Co	untr	y Spr	eads	s Bu	tterfl	ies	Spre	ads	Mon	ey Mk	ts (Ca rry / R ol	lDn I	nflatio	n	(🔰 Ra	tes Views
Tradeweb																					
World Da	shboa	ird 🔻	Maj	ors	La	tam	▼ AF	PAC 🔻	Eur	ope	▼ Mi	deas	t+Afr	ica 🔻	Scandi 🔻	Unite	d State	es G	ermany	/ Jap	an
United King	gdom	Fra	ance	Ita	ly Ca	anad	la S	witze	rland]											
Mny Mkt Rates	ON	Net	1M	Net	2M	Net	3M	Net	6M	Net	9M	Net	1Y	Net	ED Price	dPrice Cis	Price Roll				
Bills			0.2924	-0.5			0.3103	-0.2	0.3911	-0.3			0.4986	-0.0	SEP6 99.290	0.005 99.	285	Hin	t: right-o	lick on	a row to
IBOR	0.4127		0.48135	0.2	0.56325	0.0	0.6801	0.7	0.9801	1.4			1.2934	0.9	DEC6 99.235	0.000 99.	235 -5.5b)	9 8P0	T	Bld / Ask	Net Chg.
Depos	0.36		0.43		0.89		1.06	3.0	0.93		1.09		0.95	-89.0	MAR7 99.205	0.000 99.	205 -3.0b)	EUR	+ 1.11	04/08	1.11 0.0018
OIS			0.378		0.38	-0.1	0.388	0.0	0.399	-0.4	0.423	0.1	0.434	-0.3	JUN7 99.175	0.005 99	.170 -3.0bj			00/4 5	
FedFunds	0.41	41.0	0.35	0.0	0.47	0.0	0.5	0.0	0.75	0.0	0.9	0.0	1.05	0.0	SEP7 99.135	0.000 99.	.135 -4.0bj	O GBP	• 1.32	09/15	1.82 0.0084
CDs			0.17	0.0	0.2	0.0	0.26	0.0	0.45	0.0					DEC7 99.085	0.000 99.	.085 -5.0bj	JPY	♦ 104.	66/71	104. 0.1800
BAs			0.13	0.0	0.14	0.0	0.16	0.0	0.22	0.0	0.29	0.0	0.36	0.0	MAR8 99.055	0.000 99.	.055 -3.0bj	Hin	t right-c	lick on	a row to
Repos (Tsy)	0.49	-1.0	0.51	0.0	0.52	0.0	0.52	0.0							JUN8 99.020	0.005 99	.015 -3.5b		angine	area on	a 10w to
Repos (Age)	0.49	-1.0	0.51	0.0	0.52	0.0	0.52	0.0							SEP8 98.985	0.010 98	.975 -3.5b	CRO	18	Bid / Ask	Net Chg.
Repos (Mtg)	0.49		0.52	0.0	0.54	0.0	0.55	0.0							DEC8 98.935	0.005 98	.930 -5.0bj	EURG	BP 🔶 0.84	04°/09	0.84 -0.0000
FNMA DN	0.07	0.0	0.04	0.0	0.21	0.0	0.26	0.0	0.39	0.0	0.47	0.0	0.55	0.0	MAR9 98.910	0.010 58	900 -2.5b			tend Co	
Hint: right-clic	k on a i	row t	o chan	ge Cl	>										SEP9 98.830	0.010 58	860 -4.0bj 820 -4.0bj	3 🔳		ited St	ates
TRADEWEB CP	1VV	Net	1M	Net	2M	Net	3M	Net	6M	Net	9M	Net	1Y	Net	DEC9 98.775	0.000 98.	.775 -5.5b) Eq	Index	Last	Net
CP AB\$ A1+/P1			0.465	-4.5	0.565		0.665								MAR0 98.735	-0.005 98.	.740 -4.0bj	D.Jo	nes	18,372.1	12 24.45
CP SOV A1/P2							0.52	0.0	0.66	2.0	0.78	3.0	0.86	2.0	JUN0 98.695	0.000 98.	.695 -4.0bj	2	TIME 23	:19 NEV	VYORK
Basis Swaps	1Y	Net	2Y	Net	SY	Net	4Y	Net	5Y	Net	7Y	Net	10Y	Net							
3M vs 1M USD/USD	18.5	0.1	17.3	-0.1	16.7	0.5	15.7	0.6	14.6	-0.1	12.5	0.2	10.2	-0.1							
6M vs 3M USD/USD	25.3	-0.1	22.5	0.1	20.1	0.4	18.6	0.1	17.3	0.2	16.2	0.1	16.2	0.3	BILLS	BONL	os s	TRIPS		5 FF	ECON
IR Forward	Star	t	End	1	IBOR	Net	OIS	Net	FRA	Net	IBOR-OI	i Net	FRA-OIS	Net	**BILLS**	Bi	d / Ask	dYld	TedSpd	OisSpd	SpdTo1Y 🔺
0X3	18 JU	IL 2016	18 00	T 2016	0.6549	0.0	0.3938	0.1			26.11	-0.1	28.62	-0.3	14 JUL 2016	0.29	7 / 0.269				-20.2
1X4	18 AU	G 2016	18 NC	V 2016	0.7004	0.0	0.40205	0.2	0.697	2.3	29.83	0.2	30.24	0.3	21 JUL 2016	0.29	9/0.284		-38.09	-9.97	-20.0
2X5	19 SE	P 2016	19 DE	C 2016	0.7118	0.0	0.413	0.4	0.71035	1.9	29.88	-0.4	30.41	-0.3	20 1111 2046	0.28	1/0.266		30.03	11.80	21.8
3X6	18 OC	T 2016	18 JA	N 2017	0.7294	0.0	0.42465	-0.3	0.729	1.1	30.47	0.3	30.51	0.3	20 302 2010	0.20	1/0.200		-33.33	-11.00	-21.0
4X7	18 NO	V 2016	21 FE	B 2017	0.7469	0.0	0.4401	-0.3	0.746	1.6	30.68	0.6	30.69	0.6	04 AUG 2016	0.294	4/0.2/9		-38.70	-9.63	-20.5
5X8	19 DE	C 2016	20 MA	R 2017	0.7663	0.0	0.4551	-0.4	0.763	2.0	31.12	0.6	31.13	0.7	11 AUG 2016	0.29	2/0.281		-38.97	-9.45	-20.7
exe	18 JA	N 2017	18 AP	R 2017	0.7846	0.0	0.4659	0.2	0.775	1.8	31.88	-0.4	31.66	-0.5	18 ALIG 2016	0.24	<u>6 / 0 233</u>	.0.010	_43.61	_14 36	_25 3
9X12	18 AP	R 2017	18 JU	IL 2017	0.8059	0.0	0.48655	-0.8	0.801	1.4	31.93	0.4	\$1.75	0.5	KEY RATES	Last	ECON Per	od Foast	Actual	Hint: rid	ht-click o
IMM1	21 SE	P 2016	21 DE	C 2016	0.7125	0.0	0.41425	0.0	0.71795	-0.1	29.83	-0.3	30.37	-0.2	FF TARGET	0.600	CPI Ju	n 0.3%	0.2%		
IMM2	21 DE	C 2016	15 MA	R 2017	0.7669	0.0	0.4545	-0.5	0.7666	0.1	31.24	0.7	31.21	0.6	FF EFFECT	0.400				BB Index	188.58 J 84
IMM5	15 MA	R 2017	21 JU	N 2017	0.7546	0.0	0.4796	-0.4	0.74	-0.4	31.51	-0.1	26.04	-0.0	US PRIME	3.600	UNR Ju	n 4.8%	4.8%	old Spot	1228.71 -2.74
CR Maat 1	21 JU	11 2017	20 SE	ID 2017	0.0275	0.0	0.30655	-11.1	0.02025	-10.8	31.03	-0.4	31.37	-0.4	US DOLLARIDX	86.130	Retall w/	•	%	light Crude	45.18 0.43
CB Meet 2	21 SF	D 2016	02 NC	W 2016	0.5000	0.0	0.40875		0.71025		29.00		30.15	0.0						Inf Gas	48.78 0.60
00 11001 4	21 95	3-2010	02110	10010	0.1001	0.0	0,00010		0.11020		29,19		00.10								



2. Swap Pricer <SWPR>

How to price a new IRS deal

One way to price a new IRS deal is to use the Swap Pricer to set the different parameters in order to generate the fixed rate which should be paid by the fixed rate payer.

→ 😑 Swap Pricer Calculator C = _ 🗆 🗴												
BETA This application is still in development. See what's changing.		🗭 Send us feedback										
USD Pay US Dollar Fixed 1M Semi-Annual Bond 30/360 Receive US	Dollar Float 1M Quarterly MM Act/360 In Advance	Add to Portfolio Updated at: 11:26:42 AM										
USD C 🛃 Collateralized Swap Type Vanilla: Fix	rd - Float V Start Date May 31, 20	016 📰 Valuation 🗸 May 26, 2016 🛄										
Collateral Type Cash 0 Structure American	emi-Annual Bond Basis vs 3-Mo 🗸 Tenor 😽	Maturity Date Jun 1, 2021										
Collateral Ccy USD V Leg 1 Notional 1,000,00	0.00 Leg 2 Notional 1,000,000.00 Discount Curve USD - LIBC	DR - Swap vs OIS										
Main Cash Bours 70 Curves Trade Tisket OVA CCS Matrix												
1ST LEG Pay O USD I FIXED Interest Rate Notional	2ND LEG RECEIVE I USD I FLOAT	Sonal SWAP RESULTS SOLVE FOR 1st Leg										
Element Type / Pay Freq. Fixed O Semi-Annual V	Element Type / Pay Freq. Float O Quarterly	VALUATION										
Start / End Date May 31, 2016 Jun 1, 2021	Start / End Date May 31, 2016 Jun 1, 2021	NPV 0.00										
Cpn. / Accrued Type Bond 30/360 $$	Underlying / Reset Type Fixing 0 In Advance	O Premium 0.00										
	Index Name / Fixing Date LIBOR V May 26, 2016	Par Rate (%) 1.3445										
	Index Tenor / Reset Freq. 3M VQuarterly	Principal Value 0.00										
	Cpn. / Accrued Type MM Act/360 🔗 MM Act/360	Accrued 0.00										
► DETAILS	▶ DETAILS	Market Value 0.00										
		V RISK										
	Rate USD ZC (92D): 0.66700 Use F	ix										
> ZC CURVE	> ZC CURVE	DV01 0 -481.29										
V LEG RESULTS BID / ASK SPREAD	▼ LEG RESULTS	Annuity 0 -487.37										
	Strend (bp)	Modified Duration -4.74										
Fixed Rate (%) 1.3445	spread (op)	BP DV01 -4.81										
NPV / Premium -65,527.00 -6.55	NPV / Premium 65,527.00 6.55	CREDIT ADJUSTMENT										
Accrued 0.00	Accrued 0.00	BOND EQUIVALENT NOMINAL										
Market Value -65,527.00	Market Value 65,527.00	Bond LISSYT=RR Q										
▼ RISK	⊤ RISK	Nominal -986.151.37										
PVBP / DV01 -17.78 -487.89	PVRP / DV01 -463 51 6 60											
Mod Dur / RP DV01 4.81 -4.99	Mod Dur / BP DV01 0.07 0.07											
Annuity / RP Annuity 487.37 4.97	Annuity / BP Annuity 0.00 0.00											
Annuly of Annuly 407.57 4.67	Autuary of Autuary 0.00											

In the Eikon Toolbar, type **<SWPR**> (PREVIEW SWPR)

As shown above, set the necessary parameters for

- 1. Currency type (must be collateralized as per new FRS specifications0
- 2. Swap Type
- 3. Structure
- 4. Notional
- 5. Solving for 1st Leg (Payer of fixed rate in this case)

See the fixed rate for today and the market value of the IRS today.

If a spread is to be imposed, it could be included as shown in the blue box above.



How to price an existing IRS deal

If either party wishes to cancel the IRS deal halfway through the tenor, the SWPR calculator could be used to calculate the penalty that should be paid (by other sign as shown by the sign of the NPV)

Here is an example that continues from the previous screenshot.

Assuming that the start date of the contract was on January 14, 2015, where a 2% fixed rate was agreed upon. Today is 26/5/2016.

← → 🤤 Swap Pricer Calculator				C = ×
BETA This application is still in development. See what's changing.		🗭 Send us feedback		
USD Pay US Dollar Fixed 1M Semi-Annual Bond 30/360 Receive US	nce	Add to Portfolio Updated	d at: 11:30:20 AM 😭 😭	
USD C 🗶 OTC 🗸 Swap Type Vanilla: Fix	ed - Float 🗸 🗸 🗸	Start Date Jan 14, 2015	🛄 Valuation 🗸	May 26, 2016
Structure American	Semi-Annual Bond Basis vs 3-Mo 🛛 🗸	Tenor 5Y	Maturity Date	Jan 14, 2020
Leg 1 Notional 1,000,00	0.00 Leg 2 Notional 1,000,000.00			
Main Cash Flows ZC Curves Trade Ticket CVA CCS Matrix				
1ST LEG Pay 0 USD I FIXED Interest Rate Notional	2ND LEG RECEIVE USD FLOA	T Interest Rate Notional	SWAP RESULTS SOLVE	FOR NPV V
Element Type / Pay Freq. Fixed 🔹 Semi-Annual 🗸	Element Type / Pay Freq. Float	 Quarterly 	VALUATION	
Start / End Date Jan 14, 2015 Jan 14, 2020	Start / End Date Jan 14, 2015	Jan 14, 2020	NPV	-33.543.69
Cpn. / Accrued Type Bond 30/360 $$	Underlying / Reset Type Fixing	In Advance	Premium	-3.35
	Index Name / Fixing Date LIBOR	Apr 12, 2016	Par Rate (%)	1.1438
	Index Tenor / Reset Freq. 3M	✓ Quarterly ✓	Principal Value	-26,954.63
	Cpn. / Accrued Type MM Act/360	\checkmark MM Act/360 \checkmark	Accrued	-6,589.06
▶ DETAILS	▶ DETAILS		Market Value	-33,543.69
	Pate LISD LIDOR 2M	62960	v RISK	
		7.02500	DV01 0	-344.56
▶ ZC CURVE	▶ ZC CURVE		Annuity 0	-391.76
V LEG RESULTS BID / ASK SPREAD	▼ LEG RESULTS		Modified Duration	-3.33
Fixed Rate (%) 2.0000 0.00 (bps)	Spread (bp)	2	BP DV01	-3.45
NPV / Premium -78,352.10 -7.84	NPV / Premium 44,808.	41 4.48		
Market Value	Accrued 734.	53		
Market Value -71,028.51	Market Value 44,073.	38	CVA V	
V DISK	A DICK			
		49.99	DVA	
PVBP/DV01 -14.48 -357.90	PVBP7 DV01 -330	13.33		
Mod. Dui. / BP DV01 3.46 -3.58	Mod. Dur. / BP DV01 0	0.13		
Annuity / BP Annuity 391.76 3.92	Annuity / BP Annuity 0	00 0.00		

Hence, in the SWPR, we would change the following information.

- 1. Change the start date to the date of the contract (here 14/1/2015)
- 2. Change the fixed rate agreed upon (i.e. 2%)
- 3. Change the "Solve for" to NPV

4. Find the NPV of the IRS. Here the value is negative and hence the payer of the fixed rate would have to pay for the cancellation of the IRS deal.

Similarly a spread could be added if needed.





3. STIR Futures <STIR>

STIR Futures (Short Term Interest Rate Futures) work in the same way as Forward Rate Agreements (FRAs) with one key difference.

Whereas FRAs are bought in the over the counter market and can be customized, STIR futures are exchange traded and hence cannot be customized.

In the Eikon Toolbar, searh **<STIR>** in order to open the following application and enter the specific currency to find the futures available.

ේ 🧧 PREVIEW STIR Futures								8 2-E	= -	o ×
FRA Pricing [FRAP] Forward Curve [FWDC] Overr	ight Index Swap [OISC]							Rela	ted Code: ST	ÎR
									?	
Singapore Dollar								Updated	at 12:31:02 PM	
Trade Date: 18 May 2016 Value Date: 20 May	2016									
Contract: SGD 🗴 SSD 💽 💽 🚺	M Contracts 🔘 Serial Contra	acts Filter Futures								
ළ 🧧 PREVIEW STIR Futures								™ 2 -€	= -	o x
ERA Pricing (ERAP) Entward Curve (EWDC) Over	night Index Swap [OISC]	ED Futures						R	elated Code:	STIR
💻 U.S. Dollar									2	8
								Upda	ed at 12:30:19 P	PM
Trade Date: 18 May 2016 Value Date: 20 May	2016									
Contract: USD 💌 ED 💽 💌 💽	MM Contracts 🔘 Serial Contr	racts Filter Futures			1	-				
Contract Terms: isia CME/ED Mean	Reversion (%):	1.58 Volatility (%):	0.9	Apply Adjust	ment: No					
+ Calculation Parameters										
Synthetic Forward										
 Input Curves 		Select Price: Bid	Rate St	yle <= 1Y: MM	Actual/360 🔽	Rate Style	e > 1Y: MM	Actual/360	▼)	
Cash Rate: 0.626 0.626 USD3MFSR=X										
Stub Rate: 0.569 0.566 Use Stub: Yes		Details Matr		c la		a Martha				
Remove Selected Sisplay Packs		Start Interval:	Fwd Tenor:	Shc 9M	rt	• Mediu 1Y	im III	2Y	9	
Period Start T Futures	ast Imp. Rate 🔽	Future Delivery	Start Date	End Date	Rates E	nd Date	Rates	End Date	Rates	
M6 15 Jun 16 99.330 99.333	99.333 0.007	15 Jun 16 🛗	15 Jun 16	15 Mar 17	0.786	15 Jun 17	0.834	15 Jun 18	0.986 -	
06 21 Sep 16 99.200 99.205	99.205 0.008	21 Sep 16	21 Sep 16	21 Jun 17	0.894	21 Sep 17	0.931	21 Sep 18	1.067	
H7 15 Mar 17 99.030 99.035	99.030 0.010	15 Mar 17 🛱	15 Mar 17	15 Dec 17	1.033	15 Mar 18	1.005	15 Mar 19	1 190	
M7 21 Jun 17 98,965 98,970	98,970 0.010	21 Jun 17 🛗	21 Jun 17	21 Mar 18	1,101	21 Jun 18	1,133	21 Jun 19	1 252	
U7 20 Sep 17 98.905 98.910	98.910 0.011	20 Sep 17 🛗	20 Sep 17	20 Jun 18	1,162	20 Sep 18	1,192	20 Sep 19	1,307	
Z7 20 Dec 17 98.835 98.840	98.840 0.012	20 Dec 17 🛗	20 Dec 17	20 Sep 18	1.221	20 Dec 18	1.249	20 Dec 19	1.360	
H8 21 Mar 18 98.785 98.790	98.790 0.012	21 Mar 18 🛗	21 Mar 18	21 Dec 18	1.273	21 Mar 19	1.303	23 Mar 20	1.413	
M8 20 Jun 18 98.730 98.735	98.735 0.013	20 Jun 18 🛗	20 Jun 18	20 Mar 19	1.328	20 Jun 19	1.355	22 Jun 20	1.464	
U8 19 Sep 18 98.680 98.685	98.680 0.013	19 Sep 18 🛗	19 Sep 18	19 Jun 19	1.378	19 Sep 19	1.404	21 Sep 20	1.515	
Z8 19 Dec 18 98.620 98.625	98.620 0.014	19 Dec 18 🛗	19 Dec 18	19 Sep 19	1.427			21 Dec 20	1.566	
H9 20 Mar 19 98.580 98.585	98.580 0.014	20 Mar 19 🛗	20 Mar 19	20 Dec 19	1,473	20 Mar 20	1.502	22 Mar 21	1.617	
PI9 19 Jun 19 98.535 98.540	98.535 0.015	19 Jun 19 🛗	19 Jun 19	19 Mar 20	1.523	19 Jun 20	1.551	21 Jun 21	1.669	
70 18 Dec 19 98.485 98.490	90.100 0.015	18 Dec 10 m	18 Sep 19	18 Jun 20	1.573	18 Sep 20	1.601	20 Sep 21	1.721	
H0 18 Mar 20 98 385 98 390	98,380 0.016	18 Mar 20 #	18 Mar 20	18 Dec 20	1.674	18 Mar 21	1.055	18 Mar 22	1.827	
M0 17 Jun 20 98.335 98.340	98.335 0.017	17 Jun 20 🛱	17 Jun 20	17 Mar 21	1.727	17 Jun 21	1.757	17 Jun 22	1.880	
U0 16 Sep 20 98.280 98.285	98.285 0.017	16 Sep 20 🛗	16 Sep 20	16 Jun 21	1.779	16 Sep 21	1.810	16 Sep 22	1.933	
Z0 16 Dec 20 98.225 98.230	98.230 0.018	16 Dec 20 🛗	16 Dec 20	16 Sep 21	1.832	16 Dec 21	1.863	16 Dec 22	1.982	
H1 17 Mar 21 98.180 98.185	98.180 0.018	17 Mar 21 🛗	17 Mar 21	17 Dec 21	1.884	17 Mar 22	1.916	17 Mar 23	2.030 👻	
		Broken Dates								
		Rows: Insert / Delete			Near		Far	Synt	hetic Fwd	
		Start Date E	dM E	Days Date	Rates	Date 20 See	Rates	51	ates	ł
		JM HH	에 변화	92 20 Jun 20 22 Aug	16 0.572	20 Sep	16 0.6	51	0.6//	
		1M15D #	4M15D 8	92 05 H	16 0.589	05 Oct	16 0.6	62	0.698	
		8M #	12四 開	122 20 Jan	17 0.734	22 May	17 0.8	04	0.941	

Futures usually trade during the IMM dates of March, June, September and December.



When hovering over the month in the ED Page in Quotes, (Press F4, type "ED:" and hit F3, a code such as EDZ6 could be seen. Here, Z is the month code and 6 represents the year (in this case 2016).

However, this is not the only way to generate information about the details of that contract. There are three different ways for us to generate the information.

<EDZ6:>: Where Z is the month code and 6 is the last digit of the year

<EDcm3>: These are for IMM dates (the next quarterly contract) being cm1)

<EDc1>: These are for monthly contracts (the nearest monthly contract)

If <EDZ6=> is typed, a more detailed page could be obtained, as seen from the picture.

æ	++	1 0#ED	: Quote	0#ED:	Q			9 6	28.€ ≡	_ = ×
O#ED		INN/IN	M IMM 3	-MTH EUROS USD						-
nth.	Last		Net Ch	810	Ask.	Size	Open 1	High	LOW	Settle
JUNG	1-99	3325		880 +99,3300	+99,3325	2645/405	T+99.3275	+99.3325	-99.3275	99,3325
JULG	6+99	2800 -	0.0050	880 +99.2800	+99.2900	293/42	T+99.2850	+99.2850	+99.2800	99.2850
AUG6	PS+99	2500		880 +99.2350	+99.2700	30/20				99.2500
SEP6	1+99	2050 -	0.0050	880 +99.2000	+99,2050	15976/10	T+99.2050	+99.2100	+99.2000	99.2100
OCTE	PS+99	1750								99.1750
NOVE	PS+99	1450								99.1450
DECG	1+99	1000 -	0.0100	880 +99,0950	+99.1050	12100/8779	T+99.1000	+99.1050	+99.0950	99.1100
MAR7	-99	0300 -	0.0150	880 +99.0300	+99.0350	749/3859	T+99.0350	+99.0350	-99.0300	99.0450
JUN7	++98	9700 -	0.0150	880 +98.9650	+98.9700	2961/1440	T+98.9700	+98.9750	+98.9650	98.9850
SEP7	+98	9050 -	0.0200	880 +98.9050	+98,9100	294/3276	T+98.9100	+98.9150	+98.9000	98.9250
DEC7	1+98	8400 -	0.0200	880 +98.8350	+98.8400	2927/1000	T+98.8450	+98.8450	+98.8350	98.8600
MARS		7850 -	0.0250	850 +98.7850	+98.7900	3940/501	T+98.7950	+98.8000	+98.7850	98.8100
JUNS	1+98	7350 -	0.0200	850 +98.7300	+98.7350	298/1765	T+98.7450	+98.7450	+98.7300	98.7550
SEP8	1+98	.6800 -	0.0250	880 -98.6750	+98.6800	4881/68	T+98.6900	+98.6900	+98.6750	98.7050
DEC8	6+98	6200 -	0.0250	880 +98.6200	+98.6250	109/2680	T+98.6300	+98.6350	+98.6200	98.6450
MARS	+98	5800 -	0.0250	880 +98,5800	+98.5850	43/2605	T+98.5950	+98.5950	+98.5800	98.6050
1.4										100





4. FRA Pricing <FRAP>

Eikon uses 2 main ways to price a FRA.

- 1. Futures
- 2. Zero Coupon Curve

In the Eikon Toolbar, search <FRAP> in order to open the FRA Pricing Caluclator.

ŝ	F	RA Pricing										
FF	RA Arbi	trage [FRAA]	OIS [OISC]	Deposit	Analysis [DEA	N] Forward	Curve [F	WDC] ST	IR Futures [S	TIR] SSD	Futures R	eal-Time FRAs
	-	Singapo	re Dolla	ar								
	SGD Trade Date: 23 May 2016 Value Date: 25 May 2016											
+	Calcul	ation Paramete	Prs									
	_											
	1M	3M 6M 9M	12M Sin	gle FRA								
		and Distance								and entry et a		
P	riang H	rom: Futures		Contra	tt: 550			i Contracts	Serial Contra	acts Filter Fut	ures	
•	Input	Curves					Sele	ct: IMM FRA	As 🚺 Da	ates: IMM		Pricing Chart
C	Cash Ra	te: 0.813	1.000	SGD3MD	=		Period	Start Date	End Date	Implie	ed FRAs	Real-Time FRAs
		1 747	1.860	Lice Stub	Yes 🔽		1X4	15 Jun 16	21 Sep 16	0.850	1.033	
ە 	stub Rai	te:					4X7	21 Sep 16	21 Dec 16	0.903	1.080	
Re	move S	elected	M Display	Packs	Rid of R	Show Default	7X10	21 Dec 16	15 Mar 17	0.952	1.124	
	eriod	Start 1	Future	07.450	Bid DF	ASK DF	10X13	15 Mar 17	21 Jun 17	1.003	1.170	
		20 Mar 24	97.450	97.450	0.874099	0.867309	13X 16	21 Jun 17	20 Sep 17	1.056	1.218	
	1 114	19 Jun 24	97,450	97.450	0.000377	0.856445	16X 19	20 Sep 17	20 Dec 17	1.107	1.264	
	74	18 Dec 24	07.450	07.450	0.857757	0.851004	19X22	20 Dec 17	21 Mar 18	1.159	1.310	
	1 45	10 Mar 25	97.450	97.450	0.852220	0.845600	22X25	21 Mar 18	20 Jun 18	1.210	1.356	
	MS	18 Jun 25	97.450	97.450	0.846836	0.840258	25X28	20 Jun 18	19 Sep 18	1.262	1.403	
	113	10 301 23	57.150		0.010000	0.010230	28X31	19 Sep 18	19 Dec 18	1.314	1.449	
							31X34	19 Dec 18	20 Mar 19	1.367	1.496	
							34X37	20 Mar 19	19 Jun 19	1.419	1.543	
							37X40	19 Jun 19	18 Sep 19	1.472	1.591	
							40X43	18 Sep 19	18 Dec 19	1.525	1.638	
							43X46	18 Dec 19	18 Mar 20	1.578	1.686	

Here, enter the required currency as well as the method of pricing and the time periods necessary.

IMM Dates Convention

- H= March
- M= June
- U = September
- Z = December

These are the months that FRA contracts usually trade (each with 3 months tenors). Hence, although FRAs can commonly ne traded in almost all months in a year, predominantly, a high number of trades occur during these months.

Implied FRAs is the bid and ask rate of interest that the FRA predict will be the spot rate at the date of maturity and hence would be the values used to trade.



Part 5: Bonds



THOMSON REUTERS

EIKON[•] Eikon shortcuts: **Fixed Income**

APPS & TOOLS FOR INDIVIDUAL BONDS Note: In order to see the tools select the bond by hitting the down arrow and then hit the <space> bar. e.g. "USTOYT=RR Q"

DESC	Basics
Q	Quote
CHT	Chart
NEWS	Issuer News
ALQB	All Quotes
HOLD	Holdings
CALC	Bond Calculator
QH	History
DS	Debt Structure
NOTE	Notes
OV	Overview
SCHD	Payments
RES	Research
VALS	Valuations

MARKETS	
HOME	Home page
CNV	Convertibles Guide
CORP	Corporate Bond Guide
EE	Economic Events Monitor
CMO	ABS and CMOs Guide
CRDE	Credit Derivatives Guide
CREDIT	CreditViews
GOV	Government Bond Guide
IFR	IFR Markets Guide
IRD	Interest Rate Derivatives Guide
LOANS	Loans Guide
MBS	Mortgage Backed Securities Guide
MBSDB	MBS Dashboard
MUNI	Municipal Bonds Guide
BGC	BGC Market data Broker Guide
GFI	GFI Broker Guide
ICAP	ICAP Guide
MAX	MarketAxess Guide
TRAD	Tradition Broker Guide
TW	Tradeweb Guide

REAL TIME MONITORING

ALLQ	All Quotes
Q	Quote
QL	Quote List
QLI	Quote Line
MON	Monitor
TAS	Time & Sales
TICK	Ticker
OPW	Option Watch



CALCULATOR	5 & CHARTS
ALLQ	All Quotes
ASWP	Asset Swap Calculator
AVRG	Average Calculator
BNDC	Bond calculator
BDFU	Bond Futures
BDHG	Bond Hedge
BDRE	Bond Repo
BDRN	Bond Return
BDST	Bond Strategy
CAPF	Cap and Floor
CDSV	Credit Default Swap
CONV	Convertible
CORR	Correlation Matrix
FRN	FRN
FWDC	Forward Curve
FRAA	FRA Arbitrage
MBSD	MBS Dollar Roll
OASC	Option Adjusted Spread Calculator
REGR	Regression Analysis
RVBC	Relative Value Basis Chart
STIR	STIR Futures
SWCM	Swap Curve Monitor
SWPN	Swaption
SWPR	Swap Pricer
TEDC	TED Spread
ZCBR	ZC Builer
HRA	Historical Return Analysis
MACROX	Macro Explorer

Chart
Datastream Chartbook
Credit Default Swap chart
Curve chart
Economic Indicator Chart
Rebasing Chart
Relative Value chart
Technical Analysis Chart
Volatility Chart

SEARCHES	
MBSSRCH	Agency Pools and TBAs
BNDFOSRCH	Bond and STIR Futures and Options
BNDREPOSRCH	Bond Repos
CMOSRCH	CMOs/ABS
CDSWSRCH	Credit Default Swap Indices
CDSSRCH	Credit Default Swaps
CURVESRCH	Curves
GOVSRCH	Government and Corporate Bonds
LOANSSRCH	Loans
IRDOTCSRCH	OTC Interest Rate Derivatives
MUNISRCH	US Municipals
ECONSRCH	Economic Indicators
FUTSRCH	Futures Search
OPTSRCH	Options Search

NEWS	
NEWS	News Monitor
TOPNEWS	Top News
IFR	IFR Markets
BRV	Reuters BreakingViews

PORTFOLIO MANAGEMENT				
PORT	Portfolios and Lists			
DASH	Portfolio Dashboard			
CPA	China Portfolio Analytics			
BMON	Bond Monitor			
CDSMON	CDS Monitor			
SWPO	Swap Portfolio			

HELP	
FAQ	Frequently Asked Questions
HELP	Online Help

.....



1. Bond Calculator <BNDC>

On Eikon, users can calculate the bond price, as well as the different types of yields, the clean and dirt price as well as the accrued interest for the next coupon.

$e^{\phi} \leftrightarrow \Rightarrow 3$ Fixed Rate Bond Calculator FRB $C \equiv -e^{\phi} \times 10^{-10}$												
XS0644135039	Q C Reset	S			o Share Feedback Last Update .	Jul 11, 2016 11:20:19 AM 🛛 🚍						
🗮 HSBC BANK	PLC FIXED 5.300%	JUL 12, 2016 AUD F	1+ (FDT Jun 14, 2016) M	ITN ISIN: XS0644135039		0						
▼ SETTLEMENT			Main Yields Yield Curve	Cash Flows Return Zero Curve	Forward Price Cross Currency	Trade Ticket						
Trade Date	Jun 15, 2016	Ê	Display	Percentage O	From Issuance O	III sh						
Settlement Date	Jun 17, 2016	🗰 2 WD (Default) 🗡	Separate Income and Capital	No O	Currency AUD							
			Date	Annual Rate (%)	Income (%)	Paid Coupon						
Clean Price (%)	100.19750000	Mid ~	Jul 12, 2012	5.3000	5.3147	5.3147						
GB064413503=	Jun 15. 2016	TR PRICING	Jul 12, 2013	5.3000	5.3000	5.3000						
Calculate with	Vield 1	Vield 2	Jul 14, 2014	5.3000	5.3000	5.3000						
	2 226469	2 401562	Jul 13, 2015	5.3000	5.3000	5.3000						
	2.330108	2.401563	Jul 12, 2016	5.3000	105.3000							
	Native ~											
Redemption Date	Jul 12, 2016	- Maturity - YTM										
Redemption Price	100.0	0000										
Accrued	4.931944444	30E/360										
Dirty Price (%)	105.12944444											
+ COUPON												
Previous / Next	Jul 13, 2015 - Jul 12, 2016											
Frequency	Annual											
Next Ex-Dividend	Jul 12, 2016											
Rate (%)	5.300											

As there are different ways to calculate the yield to maturity, depending on the days required (360, 365 or actual) as well as different market conventions, one can make use of the Bond Calculator application <BNDC> in order to find the different yields to maturity.

- 1. In the Eikon Toolbar, search for <BNDC>
- 2. In the In-app search bar, search for the bond needed through the ticker coupon maturity convention or the ISIN Code of the bond
- 3. In the Yield tab, you could search for the different yield types. The native option would display the most common convention for the specific bond
- 4. The Cashflow tab would display the cashflow payments for the entire life of the bond.



2. Fixed Income New Issue Monitor <FINIM>

One page that many users will refer to is the Fixed Income New Issues Monitor. On this page, different new issues generated from the IFR Market News will be consolidated.

New issues at the rumour phrase will be consolidated and news will be reported through the road show till the time of pricing.

In the Eikon Toolbar, search <FINIM>

← → Fixed Income New Issues M	onitor						C'≡	= - ×
New Profile	~ 🖁 🔻	I+ ► 08-Jul-2016	11:09:48 1 - 200 of 656 Items	к К	< F	age 1 of 4	>	Ф 🗵 🎓
Source O IFR All New Issues		Updated 🔹	Issuer Name		ISIN / Cusip	Term to Ma	CPN	Deal Status
New Eller		08-Jul-2016 11:06	LANDMARK FUNDING 2016 LTD			3Y		PRICE GUIDAN
New Filter	:=	08-Jul-2016 10:09	INDUSTRIAL AND COMMERCIAL BAN					MANDATE
Show only latest deal status		08-Jul-2016 06:57			893830BE8	7Y	9%	PRICED
Deal Status:	,	08-Jul-2016 05:26			05674XAA9	10Y	5.75%	PRICED
include All		08-Jul-2016 05:18			86562MAE0	5Y	2.058%	PRICED
		08-Jul-2016 05:18			86562MAF7	10Y	2.632%	PRICED
Characteristic:	/ ×	08-Jul-2016 04:53	PETROBRAS GLOBAL FINANCE BV			5Y	8.375%	PRICED
include All		08-Jul-2016 04:53			71647NAQ2	10Y	8.75%	PRICED
	∕ ×	08-Jul-2016 04:20			14162VAA4	10Y	5.125%	PRICED
		08-Jul-2016 04:07			893830BE8	7Y		LAUNCHED
include USD - U.S. Dollar, SGD - Sin		08-Jul-2016 03:40			02665WBE0	3Y	1.2%	PRICED
Domicile of Issuer:	🖋 🗡	08-Jul-2016 03:40			US02665WBF7	5Y	1.65%	PRICED
include All		08-Jul-2016 03:28			US89366LAE48	13Y	3.875%	PRICED
	<i>.</i>	08-Jul-2016 03:26	INDUSTRIAL AND COMMERCIAL BAN			3Y	1.875%	PRICED
Issuer Name:	<i>*</i> ^	08-Jul-2016 03:20			754730AE9	10Y	3.625%	PRICED
contains Any		08-Jul-2016 03:20			754730AF6	30Y	4.95%	PRICED
Sector / Subsector:	🖌 🗙	08-Jul-2016 03:14			86765BAT6	10Y	3.9%	PRICED
include All		08-Jul-2016 03:04			25468PDN3	30Y	3%	PRICED
		08-Jul-2016 03:04			25468PDM5	10Y	1.85%	PRICED
Updated:	/ ×	08-Jul-2016 03:04			25468PDL7	3Y	0.875%	PRICED
last 30 Days		08-Jul-2016 02:58			067316AD1	10Y	2.75%	PRICED
		08-Jul-2016 02:46	HKT CAPITAL NO. 4			10Y	3%	PRICED
		08-Jul-2016 02:33			313747AX5	30Y	3.625%	PRICED
		08-Jul-2016 02:32			XS1434120165	3Y	4.75%	PRICED
		08-Jul-2016 02:22	HT GLOBAL IT SOLUTIONS HOLDING			5Y	7%	PRICED
		08-Jul-2016 02:18	EVGRN 2016-2					PRICED
		08-Jul-2016 01:44	PETROBRAS GLOBAL FINANCE BV			5Y	8.375%	LAUNCHED
		08-Jul-2016 01:44			71647NAQ2	10Y	8.75%	LAUNCHED
		08-Jul-2016 01:27			86562MAE0	5Y		LAUNCHED
		08-Jul-2016 01:27			86562MAG5	5Y		PRICED
		08-Jul-2016 01:27			86562MAG5	5Y		LAUNCHED
		08-Jul-2016 01:27			86562MAF7	10Y	2.632%	LAUNCHED
		08-Jul-2016 01:16				3Y		LAUNCHED
		08-Jul-2016 00:56	SUMITUMO MITSUI FINANCIAL GRO	706	INC 15UAD6	10Y	3.5%	PRICED
		08-Jul-2016 00:53	SUMITOMO MITSUI FINANCIAL GROU	E	-	57		PRICE GLIIDAN
Powered by IFR Markets					🗭 Send us you	feedback 🔤		

In the page, you are able to adjust the following information about the issues.

- 1. Deal Status
- 2. Characteristic
- 3. Currency of Issue
- 4. Domicile of Issuer
- 5. Issuer Name
- 6. Sector or Subsector
- 7. Whether it has been updated in the past x days (e.g. 30 days)

Also, users who are looking at all new issues (not limited to the IFR page) can select "All New Issues" for all different types of issues available in the system.



3. Rates Views <RV>

Rates Views give users a quick and easy access to a whole range of key screens for them to monitor rates activity; identify trade opportunities and its optimal allocation, track the global market from a single page and to monitor Tradeweb prices and gauge market direction and latest movements.

c₀ ← ⇒	$\phi \leftrightarrow \phi$ Q H Rates C $\equiv -\sigma \times$																					
Outright 🗸	O SELI	<drop a="" s<="" th=""><th>ecurity here:</th><th>></th><th>Add to</th><th>o My List</th><th>Ticket</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Ð</th></drop>	ecurity here:	>	Add to	o My List	Ticket															Ð
Rates S	pread Ma	trix Cou	intry Spr	eads B	utterflie	s Sprea	ads Mo	ney Mkts	Carry	/ RollDn	Inflat	ion Tr	adeweb	🗸 Тос	lbar					6	Rate:	views
Country	United State	s 🗸 Ch	ange sinc	e 1D ago	✓ Treas	sury Sourc	e TWEB	✓ Swa	p Source	TR Comp.	✓ Bond	Future	Near Contra	ct 🗸 Ot	her Info 🛛	CDS	$\mathbf{\mathbf{v}}$					
Bonds	BID	ASK	dPX	Vield	dVld	ASwn	dáswo	Sums	dSwne	MidSwp	dSwp	Fut	Price	dPX	Vield	dVid	СТО	Vield	dVld		InvPv	InvSpd
2V	100-020	100.022	.0.00	0.5930	0.008	-16.10	.0.50	16.88	0.38	0 7590	0.014	THUS	109-202		0.608	0.008	1 375 06/18	0.606	.0.002	10/05/16	101-103	17.00
37	100-020	100-022	-0-00+	0.6870	0.006	-13.10	-0.60	13.38	0.13	0.8160	0.018	YRU6	105-202	0-000	3,721	0.000	1.625 06/19	0.693	-0.001	10/05/16	94-187	-288.69
5Y	100-25+	100-256	+0-002	0.9610	-0.001	0.70	-1.00	-0.50	0.38	0.9524	0.017	FVU6	122-11+	+0-002	0.917	-0.001	1.625 11/20	0.902	-0.002	10/05/16	102-281	1.17
7Y	101-040	101-04+	+0-010	1.2060	-0.005	10.80	-0.80	-10.75	0.00	1.1010	0.017	TYU6	133-22+	+0-010	1.201	-0.004	1.750 05/23	1.181	-0.007	9/30/16	103-15+	-9.64
10Y	102-08+	102-090	+0-020	1.3780	-0.007	10.10	-0.40	-9.00	0.38	1.2850	0.010	TNU6	147-040	+0-02+	1.405	-0.006	1.625 02/26	1.381	-0.008	9/30/16	101-296	-12.30
20Y								-13.00	0.13	1.6260	0.005											
30Y	108-030	108-040	+0-14+	2.1320	-0.020	43.10	-0.90	-41.25	0.50	1.7210	0.003	USU6	176-070	+0-110	1.690	-0.014	4.500 02/36	1.669	-0.016	9/30/16	146-083	-5.86
40Y								-39.50	0.38	1.7360	-0.002	AULU6	192-040	+0-180	2.048	-0.017	3.125 11/41	2.030	-0.018	9/30/16	121-017	-34.92
Tsy Crv	Bid	Chg	Tsy Bfly	Bid	Chg	IRS Crv	Bid	Chg	IRS Bfly	Bid	Chg	10YR	Bid Yld	dYld	CDS	Sprd	dSpd	Packs	Last	Net	Bundles	Last
2/5	36.60	0.40	2/5/10	4.40	-1.10	2/5	20.0	-1.00	2/5/10	-16.42	1.54	UST	1.3780	-0.007	1Y	10.70	-0.01	White	-0.0075	-0.01	2_YEAR	-0.0075
2/10	78.40	-0.30	2/5/30	79.80	-2.60	2/10	54.9	-1.30	2/5/30	-59.32	3.04	BUND	-0.1750	0.002	2Y	11.06	-0.02	Red	-0.0050	-0.01	3_YEAR	0.0000
2/30	153.80	-1.80	2/10/30	-3.60	-1.00	2/30	98.0	-2.60	2/10/30	7.60	1.80	GILT	0.7650	-0.007	3Y	11.04	-0.01	Green	0.0025	0.00	4_YEAR	-0.0025
5/10	41.60	-0.70	5/10/30	33.40	-0.60	5/10	35.6	-0.40	5/10/30	-11.77	0.46	JGB	-0.2720	-0.007	5Y	14.24	0.00	Blue	0.0125	0.01	5_YEAR	0.0075
5/30	117.00	-2.20	2/3/FV	13.20	-0.40	5/30	78.7	-1.70				CAD	0.9730	0.000	10Y	24.98	-0.21	Gold	0.0125	0.01		
10/30	75.30	-1.40	3/FV/5	-19.10	0.00	10/30	47.1	-0.30				OAT	0.1380	0.005	30Y	23.00	0.20	Purple	0.0225	0.02		
CurrCpn	dYld	Yield	LIBOR	Last	FRA	Rate	dRate	STIR	Price	dPx	Rate	Roll	FX	BID	ASK	Net	Stock Ida	Last	Net	Cmdty.	Last	Net
FNMA 30Y	0.007	2.286	1M	0.47255	1X4	0.641	0.007	EDU6	99.325	-0.010	0.675		EUR	1.1089	1.1092	-0.001	D.Jones	17918.6	78.00	CRB	189.96	0.00
10Y IRS	0.020	1.285	3M	0.66110	2X5	0.652	0.011	EDZ6	99.295	-0.010	0.705	3.00 bp	GBP	1.3029	1.3034	0.0100	SP 500	2099.73	11.18	L.Crude	48.00	0.57
CMM Basis	-1.300	100.100	6M	0.92415	3X6	0.661	0.011	EDH7	99.275	-0.010	0.725	2.00 bp	JPY	101.15	101.19	-0.160		14.8100	-0.15	NatGas	2.81	0.03
Credit 5Y	BID	ASK	Net	Wk %	4X7	0.671	0.011	EDM7	99.245	-0.010	0.755	3.00 bp	CAD	1.293	1.2935	-0.003	CAC 40	4151.32	66.02	Heat.Oil	1.49	0.02
CDX NA IG	76.63	77.16	0.59	-0.95	5X8	0.680	0.011	EDU7	99.210	-0.010	0.790	3.50 bp	CHF	0.9763	0.9766	0.0020	FTSE 100	6553.08	89.49	Gold	1368.60	3.70
Itraxx EUR	80.98	81.93	-1.59	-2.86	6X9	0.688	0.013	EDZ7	99.165	-0.005	0.835	4.50 bp	AUD	0.7525	0.753	0.0010	Nik. 225	15276.2	-102.75	Silver	20.13	-0.04
Itraxx Xover	361.82	365.28	-2.01	-0.62	7X10	0.697	0.016	EDH8	99.135	-0.005	0.865	3.00 bp	CNY	6.68	6.6831	-0.010		1226.09	-8.11	Coffee	141.95	0.00
SOVX WE	30.52	31.52	0.00	3.02	8X11	0./15	0.033	EDM8	99.100	-0.005	0.900	3.50 DD	SEK	8.5376	8.5406	0.0155	UAX	9478.84	105.58	wneat	417.00	1.25
									News	ECON			19901	10001	Mids 1							
Daily 118	777-00					- 1 - 1-		-	THEWS	LCON	i Age					ny List	_					
	/ 1 1-KK					8/4/2	016 - 12/7	2016 (EST)	Debt Nev	ws 🗹	Кеу	vord + Er	ITER: DB	I AND US	5 AND LEI	N						
Line, US7Y	T=RR, Bid Yi 1 2064	eld(Last)						1.7	Thursday	y, July 07	, 2016											
////2010,	1.2004		\sim					- 1.65	18:20:08	DJN - D	J Express	Scripts F	iles 8K - O	ther Eve	nts ESRX.	D						
	\sim							-1.6	18:17:40	RTRS -	BRIEF-To	werJazz e	extends pa	artnership	with JA N	litsui						
		\mathbf{X}	1					- 1.55	18:16:21	DJN - D	J NRG En	ergy Files	8K - Direc	t Or Off-	Balance Sl	heet Finar	ncial Obligatio	n NRG.N				
II / Y -		~~^\		- h	_	A		-1.5	18:16:19	CHITRI	- He's wi	th her on	this									
								- 1.45	18:16:14	DJN - D	J NRG En	ergy Files	8K - Entr	y Into De	finitive Ag	reement	NRG.N					
					5	7			18:14:43	DJN - D	J Emmis	Communi	cations Eile	s 8K - Re	gulation F	D EMMS.C)					
					\sim			1.4	18:13:48	DJN - D	J El Paso	Elec Files	8K - Asse	t Acquisit	ion Or Dis	position_E	E.N PNW.N					
								1.35	18:12:59	TRLPC	- China: C)ihoo 360	inks loan	to back r	rivatisatio	n						
						L	\wedge	1.3	18:12:46	DIN - P	ress Rele	ase: Keer	That Vac	ation Fee	ling All Su	mmer wit	h Road Trip I	ideas from	n Priceline	.com and	ManQues	PCIN
								1.25	18.12.20	RTRS	RRIFE-YD	0 Logisti	s files for	notential	miyed she	alf	interest in particular		- Heenine		nap gales	
							V-	Auto	18.10.25	MIDTER		t Actions	On Dock	CanitaLP	ocoivos P	w Rating	¢7/Sharo Dri	co Targot	From 1		K N	
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April	2016	Ma	y 2016		June	2016	Jul 1	6	18.10.09	- MCU	J 2-11 Be	mennark		s - 0.5. \ 	s other N	acions						_
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In the Eikon Toolbar, search <RV> in order to open the application.

In addition to providing data, Rates Views also contain several inbuilt tools to aid users' decision making. They can:

- Chart historical time series and technical analyses for any data field in the page
- Access related news headlines
- Create custom lists of instruments or strategies
- Create and initiate multi-security trades
- Integrate data into their workplace.



4. Bond Monitor <BMON>

One useful application on Eikon is the Bond Monitor application. Using this application, users can monitor a series of bonds, such as the different benchmark, treasury, issuer bonds etc on one page.

E Bond Monitor							≡ _ æ ×
Predefined Lists «				00% 5 4 004			
AMERS	MONE IA	ANY AUTHORIT	Y OF SINGAPORE 0.00	0% 5 Aug 201	10	Refresh	Columns 🔻 😨
Argentina	SG70F6000002	2 SGD MOYTA				11:02:42 AM (7/8/201	.6)
⊳ Brazil							
⊳ Canada	List Name:	[🛛 🎅 Save New 🛛 Valuation Date:	7/8/2016 📷	Source: Thomson Rei	uters Composite	1
Mexico							
United States of America	(42) List lo	aded:					Calculation Parameters
Benchmarks 0#USBMK=							
Treasuries 0#USTSY=	Delete Selected Rows		Bond R	ating Overview Bond Ra		ew Issuer Rating 🔲 Mar	age all bonds as fixed Rate
Convertibles 0#CBUS=							
Auction Guide	Bond ID	Bond Type Ticker	Issuer	Cpn (%) Maturity	Ccy Face Amount	Accrued Price	Contributor
Credit Curves - 0#USDD0	SGML16118N=	FRB MOYTA	MONETARY AUTHORITY OF SINGAPORE	0.000 8/5/2016	SGD 1,000,000.00	0.00 99.95950000	HSBC MARKETS Other
Credit Curves - 0#USDBO		FRB MOYTA	MONETARY AUTHORITY OF SINGAPORE	0.000 9/2/2016	SGD 1,000,000.00	0.00 99.91100000	HSBC MARKETS Other :
				0.000 0/00/00/	50D (1000.000.00)		
APAC Australia	SGML16126A=	нкв мотта	MONETARY AUTHORITY OF SINGAPORE	0.000 9/30/2016	SGD 1,000,000.00	0.00 99.85550000	HSBC MARKETS Other:
D China	SGMX16113E=	FRB MOYTA		0.000 12/20/2016	SGD 1,000,000.00	0.00 99.68450000	HSBC MARKETS Other !
 Hong Kong 	SGBY16100F=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	0.000 5/1/2017	SGD 1,000,000.00	0.00 99.32900000	HSBC MARKETS Other 1
⊳ India		EPP STNGAD	STNGADORE REDURITO OF (GOVERNMENT)	0 500 4/1/2019	sep 1 000 000 00	1 229 79 99 2000000	MALAYAN RANK Other
D Indonesia Dapan							
⊳ Malaysia	SGNX11100X=	FKB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	2.250 6/1/2021	SGD 1,000,000.00	2,459.02 104.28000000	MALAYAN BANK Other 1
New Zealand De Deille sin se	SGNX16100F=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	2.125 6/1/2026	SGD 1,000,000.00	2,322.40 103.82000000	MALAYAN BANK Other 1
Singapore	SGNZ10100F=	FRB SINGAP		2.875 9/1/2030	SGD 1,000,000.00	10,312.50 111.05000000	MALAYAN BANK Other !
Benchmarks 0#SGBMK=	SGNZ13100V=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	3.375 9/1/2033	SGD 1,000,000.00	12,105.98 119.20000000	MALAYAN BANK Other 1
Compartibles 0#SGTSY=	SGNA16100H=	FRB SINGAP		2.750 3/1/2046	SGD 1,000,000.00	9,864.13 112.95000000	DEUTSCHE Other !
Convertibles 04C651NGA	SGNY01100F=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	3.750 9/1/2016	SGD 1,000,000.00	13,451.09 100.45000000	DEUTSCHE Other !
b South Korea	SGN710100Z=	FRB SINGAP		2.375 4/1/2017	SGD 1,000,000.00	6,553.96 101.20000000	DEUTSCHE Other !
▷ Taiwan ▷ Thailand	SGN215100F=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	1.375 10/1/2017	5GD 1,000,000.00	3,794.40 100.70000000	DEUTSCHE Other 1
EMEA ex EMU	SGN513100T=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	0.500 4/1/2018	SGD 1,000,000.00	1,379.78 99.28000000	MALAYAN BANK Other (
Denmark Hungapy	SGNY03100A=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	4.000 9/1/2018	5GD 1,000,000,00	14,347.83 106.5000000	DEUTSCHE Other S
▷ Iceland		FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	2.500 6/1/2019	5GD 1.000.000.00	2,732,24 104,0800000	MALAYAN BANK Other
Norway		EPP STNGAD		1.635 10/1/3019	560 1 000 000 00	4 494 79 101 5500000	DELITECHE Other
Polanu Russia				2.000 7/4/2020	500		
Saudi Arabia Saudi Afalan		FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	2.000 //1/2020	SGD 1,000,000.00	543.48 103.1500000	MALATAN BANK Other
D South Africa D Sweden	SGNY05100N=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	3.250 9/1/2020	SGD 1,000,000.00	11,657.61 108.16000000	MALAYAN BANK Other 1
 Switzerland 	SGNX11100X=	FRB SINGAP		2.250 6/1/2021	SGD 1,000,000.00	2,459.02 104.28000000	MALAYAN BANK Other !
▷ Turkey ▷ United Kingdom	SGNY07100X=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	3.125 9/1/2022	SGD 1,000,000.00	11,209.24 109.85000000	MALAYAN BANK Other 1
EMU	SGNX13100H=	FRB SINGAP		2.750 7/1/2023	SGD 1,000,000.00	747.28 107.95000000	MALAYAN BANK Other !
Austria Relative	SGNY09100H=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	3.000 9/1/2024	SGD 1,000,000.00	10,760.87 110.56000000	DEUTSCHE Other !
	SGNX15100Z=	FRB SINGAP		2.375 6/1/2025	SGD 1,000,000.00	2,595.63 106.07000000	MALAYAN BANK Other !
Predefined Lists	SGNX16100F=	FRB SINGAP	SINGAPORE, REPUBLIC OF (GOVERNMENT)	2.125 6/1/2026	5GD 1,000,000.00	2,322.40 103.82000000	MALAYAN BANK Other 1
Portfolio	SGNZ071005=	FRB SINGAP		3.500 3/1/2027	SGD 1,000,000.00	12,554.35 116.75000000	MALAYAN BANK Other 1
Curves							
Rating Agency		•					•
+ Message Log							

Users can also import and export their table from Excel as well as to specify the calculation parameters and whether they would like to manage all the bonds as fixed rate bonds.

In order to utilise this page, users can do the following,

- 1. In the Eikon Toolbar, search **<BMON>** in order to open the application
- 2. Select the bonds that you wish to search for in the left most column.

Using Bond Monitor, you can display the latest ratings from Fitch, S&P, Moody's, and up to three other agencies. Add ratings and related information your list by choosing a new field such as Rating #1 (see Choosing your data) then choosing an agency in the sidebar.

You can apply a rating template by choosing it from the Columns menu or by clicking one of the template names above your bond list. When you apply a rating template, the sidebar opens automatically to let you choose one or more agencies.



5. Government and Corporate Bond Search < GOVSRCH>

Thomson Reuters has a Bond Screener Application which can be used to screen Government and Corporate Bond issues.

In the Eikon Toolbar, search <GOVSRCH> or Government and Corporate Bonds in order to obtain the following screen,

elect Price Source	arket Code:				×		Jelaul	5	Oele	ect rea	ungs	•	SHOW A	ppiled r	liters	CIE		5	
Bonds (72)																			
Issuer Name		Country	Country of Issue			Principal Currency		Principal Yield to Maturity Coupon		Yield to Maturity		Maturity		Coupon		Coupon		Ticker	
	Q,		T	x		T	×		T	×		Ţ	×		T	×		Q	
Lehman Brothers Holdings Inc		United S	States		US Dol	lar		95	.1922	2830	11-	lul-20	36		7.	0000	LEH		
Lehman Brothers Holdings Inc		United S	States		US Dol	lar		94	.6440	0940	20-	lun-2(036		6	9000	LEH		
Navient Corp		United S	States		US Dol	lar		11	.2590	0940	13-	lun-2(036		6	7200	NAVI		
Navient Corp		United S	States		US Dol	lar		11	.2583	3010	13-1	/ar-2(036		6	4650	NAVI		
Navient Corp		United S	States		US Dol	lar		11	.2572	2870	07-	lul-20	36		6	8500	NAVI		
Weatherford International Ltd		United S	States		US Dol	lar		10	.0593	3020	01-/	lug-2	036		6	5000	WFTWE		
Pakistan, Islamic Republic of (Government)		United S	States		US Dol	lar		8	.8124	4020	31-1	/lar-2(036		7	8750	PAKIST		
Embarq Corp		United S	States		US Dol	lar		7	.9948	3880	01-	lun-2(036		7	9950	CTLEM		
Sovereign Capital Trust VI		United S	States		US Dol	lar		7	.9203	3850	13-	lun-2(036		7	9080	SOVSCF		
Macy's Retail Holdings Inc		United S	States		US Dol	lar		7	.7988	3940	15-/	\ug-2	036		7.	8750	MMRHL		
Diamond 1 Finance Corp		United S	States		US Dol	lar		7	.7488	3870	15-	lul-20	36		8	1000	DIAMNA		
HCAInc		United S	States		US Dol	lar		7	.1127	7240	15-	lul-20	36		7.	7500	HCAHC		
Telecom Italia Capital SA		United S	States		US Dol	lar		6	.9890	0020	18-	lul-20	36		7.	2000	TLITA		
									7000			4 0	000			7000			

Pressing the Add / Remove Columns button would allow users to specify the different type of criteria they would like to use when screening the bonds.

Next, using the **T** button, users can adjust the filters

Also, clicking on the titles of each column would sort the list according to the highest to lowest value, or the lowest to highest value, whichever is preferred.

Double-clicking on the names of the issuers in blue would reveal more information about the individual bonds, by linking the user to the description page of the bond.



6. Bond View

Bond View is able to aggregate versatile pricing and valuation data and tools in categories.

e ← → Q (≘) sonyc	0.6640 17-Mar-2017	C = _ ~
Home Asset Classes V Countries V News and	IResearch ▼ My Eikon ▼ Reuters Insider Trading ▼ Financ	ial Institutions 🔻 Updated 08-Jul-2016 15:48 Refresh 🚯
SONYC 0.664 17-MAR-2017 SONY CORP V ISIN V JP34350	JP / JPY 10AC37	Chart Studio CORP BOND DealWatch (Japanese language) Credit/lews Related Company a Quote
Close Bid: 100.461 Close Ask: 100.511 Cl	ose Bid Yield: -0.015 Close Ask Yield: -0.088 JP002767	58= 07-Jul-2018 08:00 TR PRICING SERVICE
Overview All Quotes News Description V	aluations Schedules Chart Notes Issuer Calculators	Related Instruments Holdings Research 360 Menu
BASICS		
		<u>Configure</u> <u>Set as Default</u> <u>Reset</u>
PRINCIPAL / COUPON INFORMATION		SECURITY IDENTIFIERS
Maturity Date	17-Mar-2017 @ 100	Type Value
Principal / Coupon Currency		ISIN JP343500AC37
Amount Outstanding	45 000 000 JPY	COMMON CODE 085355392
Coupon Type	Fixed:Plain Vanilla Fixed Coupon	CINS J7620VAA4
Coupon Frequency	Semiannually	
Current Coupon / Next Pay Date	0.66400 / 20-Sep-2016	
Dated / First / Final Coupon	13-Mar-2012 / 20-Sep-2012 / 20-Sep-2016	Exchange Name Sedol Effective Date End Date Status
Irregular Coupon	Both	XXXX - NO MARKET (E.G. UNLISTED) B7KV6W5 08-Mar-2012 Yes
Inflation Index Linked	No	9/00 00376759
Principal Index Linked	No	
Floating Rate Note	No	
ISSUANCE DETAILS		
Domicile of Issuer	Japan (JP)	Prospectus Available Yes (07-Mar-2012)
Issuer Country of Incorporation	Japan (JP)	Latest Prospectus 14-mar-2012
Market of Issue	Japan	Debt Type Description Bond
Country of Risk	Japan (JP)	Asset Status Description Issued
Issue Date / Price / Yield	13-Mar-2012 / 100 / 0.664	Industry of Issuer Electronics/Electric - Electronics/Electric
Issue Spread	36 (JGB 10Y 285)	Offering Tupe
Reference Issue Spread	15.4 (JPY SWAP VS LIBOR)	Dileting Type Underwriten
Original Issue Amount	45,000,000,000 JPY	Sories # 27
Total Issue Amount	45,000,000 JPY	Paving Agent SUMITOMO MITSUI BANKING CORP.
Total Price to Public	45,000,000,000 JPY	
Announcement Date	07-Mar-2012	
Green Bond	No	
Use of Proceeds		
MTN	No	
Underwriters		
DUTING		

In the Eikon Toolbar, search for the bond required (E.g. SONYC 0.664)

- Overview: cross-content page with charts, news and events
- All Quotes: able to retrieve real-time market quotes for a bond
- News: related news and Top News Headlines
- Description: contains data on the principal and coupon of the issue,
- Valuations: users can see the calculated figures for yields, spreads, convexity and duration.
- History: contains the time-series valuation data on YTM, price, yield spread, YTW, modified duration and convexity
- Issuer: Provides details on the issuer's debt structure and its ratings and CDSs.
- Calculators: gives access to the set of analytical and valuation tools available for a particular instrument
- Related instruments: allows searching of similar instruments
- Holdings: details on holdings of institutional investors
- Research: allows searching for and accessing broker research reports
- 360 Menu: provides a comprehensive list of all available tools, news, market data and features



7. Money Market and Bond Yield Polls <MBYP>

The following chart could be obtained

- 1. In the Eikon Toolbar, type <MBYP> for Money Markets and Bond Yield Polls
- 2. Choose the country you wish to search at the poll type
- 3. If any specific contributor is favoured, a line representing their forecast could be added by clicking the box next to their name.



From this, the different expectations of rates and term structures could be observed for different countries, according to the probability of occurrence and the minimum and maximum values are also predicted.



8. International Financing Review

<IFR>

The International Financing Review <IFR> enables users to access a 24-7 unique news, commentaries and analyses coverage of developments in:

- Credit
- Rates
- Foreign Exchange

In the Eikon Toolbar, search <**IFR**> in order to open the application. From here, users are able to set alerts for different events, by selecting "My Alerts" at the top of the page.

					G					
			Bookmar	ks Head	dline View	er My Alerts				
						SEADOU				
						SEARCH				
GLOBAL ECONOMIC CALENDAR										
Date	GMT	Country	Release	Unit	Period	Actual				
07 Jul	02:00	PH	Forex Reserves USD*	bln \$	Jun	83.97				
07 Jul	04:00	TH	Consumer Confidence Idx*		Jun	71.60				
07 Jul	04:30	NL	CPI YY NSA	%	Jun	0.00				
07 Jul	05:00	JP	Leading Indicator*		May	0.00				
07 Jul	05:00	JP	Coincident Indicator MM*		May	-1.50				
07 Jul	05:00	EE	Consumer Price Index MM*	%	Jun	0.30				
07 Jul	05:00	EE	Consumer Price Index YY*	%	Jun	-0.40				
07 Jul	06:00	DE	Industrial Output MM	%	May	-1.30				
07 Jul	06:45	FR	Exports, EUR Approx Time	bin EU	May	37.70				
07 Jul	06:45	FR	Imports, EUR Approx Time	bin EU	May	40.50				
07 Jul	06:45	FR	Current Account	bin EU	May	-0.30				
07 Jul	06:45	FR	Trade Balance, EUR, SA	bin EU	May	-2.80				
07 Jul	07:00	AT	Wholesale Prices NSA MM*	%	Jun	0.60				
07 Jul	07:00	CZ	Ftrade Bal NRA	bin CZ	May	18.20				
07 Jul	07:00	AI	Wholesale Prices NSA YY*	%	Jun	-3.40				
07 Jul	07:00	DK	Industrial Production MM*	%	May	1.00				
07 Jul	07:00	HU		%	May	9.20				
07 Jul	07:15	СН		%	Jun	-0.40				
07 Jul	07:15	СН	CPIMM	%	Jun	0.10				
07 Jul	00:80	NO	Manufacturing Output MM*	%	May	0.20				
07 Jul	08:30	GB	Industrial Output YY	%	May	1.40				
07 Jul	08:30	GB	Manufacturing Output MM	%	May	-0.50				
07 Jul	08:30	GB	Manufacturing Output MM	%	May	-0.50				
	GLOBAI Date 07 Jul 07 Jul	GLOBAL ECON Date GMT 07 Jul 02:00 07 Jul 02:00 07 Jul 05:00 07 Jul 06:00 07 Jul 06:01 07 Jul 06:02 07 Jul 06:45 07 Jul 07:00 07 Jul 08:00 07 Jul 08:00 07 Jul 08:00 07 Jul 08:30 07 Jul 08:30 07 Jul 08:30	GLOBAL ECONUCICAL Date GMT Country 07 Jul 02:00 PH 07 Jul 02:00 PH 07 Jul 04:00 TH 07 Jul 05:00 JP 07 Jul 05:00 JP 07 Jul 05:00 EE 07 Jul 05:00 EE 07 Jul 05:00 EE 07 Jul 05:00 EE 07 Jul 06:00 DE 07 Jul 06:01 FR 07 Jul 06:45 FR 07 Jul 07:00 AT 07 Jul 07:00 AT 07 Jul 07:00 NC 07 Jul 07:00 RT 07 Jul 07:00 NC 07 Jul 07:00 RT 07 Jul 07:00 NC 07 Jul 07:00 NC 07 Jul 07:00 NC 07 Jul 08:00 NO	Bookmar GLOBAL ECONUMIC CALENDAR Date GMT Country Release 07 Jul 02:00 PH Forex Reserves USD* 07 Jul 02:00 PH Forex Reserves USD* 07 Jul 04:00 TH Consumer Confidence Idx* 07 Jul 05:00 JP Leading Indicator* 07 Jul 05:00 JP Consumer Confidence Idx* 07 Jul 05:00 JP Consumer Price Index MM* 07 Jul 05:00 JP Consumer Price Index MM* 07 Jul 05:00 EE Consumer Price Index MM* 07 Jul 06:00 DE Industrial Output MM 07 Jul 06:00 DE Industrial Output MM 07 Jul 06:45 FR Exports, EUR Approx Time 07 Jul 06:45 FR Current Account 07 Jul 06:45 FR Current Account 07 Jul 07:00 AT Wholesale Prices NSA MY* 07 Jul 07:00 <td>GLOBAL ECONUNIC CALENDAR Date GMT Country Release Unit 07 Jul 02:00 PH Forex Reserves USD* bin 5 07 Jul 02:00 PH Forex Reserves USD* bin 5 07 Jul 04:00 TH Consumer Confidence Idx* 0 07 Jul 04:00 TH Consumer Confidence Idx* 0 07 Jul 05:00 JP Leading Indicator* 0 07 Jul 05:00 JP Consumer Price Index MM* % 07 Jul 05:00 JP Consumer Price Index MM* % 07 Jul 06:00 DE Industrial Output MM % 07 Jul 06:05 FR Exports, EUR Approx Time In EU 07 Jul 06:45 FR Imports, EUR Approx Time In EU 07 Jul 06:45 FR Trade Balance, EUR, SA In CZ 07 Jul 06:45 FR Trade Balance SURA SA In CZ 07 Jul 07:00 AT <t< td=""><td>Control Bookmarks Headline View GLOBAL ECONUMIC CALENDAR Date GMT Country Release Unit Period 07 Jul 02:00 PH Forex Reserves USD* bln \$ Jun 07 Jul 02:00 PH Forex Reserves USD* bln \$ Jun 07 Jul 04:00 TH Consumer Confidence Idx* Jun 07 Jul 05:00 JP Leading Indicator* May 07 Jul 05:00 JP Consumer Price Index MM* May 07 Jul 05:00 JP Consumer Price Index MM* May 07 Jul 05:00 JP Consumer Price Index MM* May 07 Jul 06:00 DE Industrial Output MM % Jun 07 Jul 06:05 FR Exports, EUR Approx Time bln EU May 07 Jul 06:45 FR Imports, EUR Approx Time bln EU May 07 Jul 06:45 FR Trade Balance, EUR, SA bln EU May 07 Jul 06:45 FR Trade Balance, SA MM*</td></t<></td>	GLOBAL ECONUNIC CALENDAR Date GMT Country Release Unit 07 Jul 02:00 PH Forex Reserves USD* bin 5 07 Jul 02:00 PH Forex Reserves USD* bin 5 07 Jul 04:00 TH Consumer Confidence Idx* 0 07 Jul 04:00 TH Consumer Confidence Idx* 0 07 Jul 05:00 JP Leading Indicator* 0 07 Jul 05:00 JP Consumer Price Index MM* % 07 Jul 05:00 JP Consumer Price Index MM* % 07 Jul 06:00 DE Industrial Output MM % 07 Jul 06:05 FR Exports, EUR Approx Time In EU 07 Jul 06:45 FR Imports, EUR Approx Time In EU 07 Jul 06:45 FR Trade Balance, EUR, SA In CZ 07 Jul 06:45 FR Trade Balance SURA SA In CZ 07 Jul 07:00 AT <t< td=""><td>Control Bookmarks Headline View GLOBAL ECONUMIC CALENDAR Date GMT Country Release Unit Period 07 Jul 02:00 PH Forex Reserves USD* bln \$ Jun 07 Jul 02:00 PH Forex Reserves USD* bln \$ Jun 07 Jul 04:00 TH Consumer Confidence Idx* Jun 07 Jul 05:00 JP Leading Indicator* May 07 Jul 05:00 JP Consumer Price Index MM* May 07 Jul 05:00 JP Consumer Price Index MM* May 07 Jul 05:00 JP Consumer Price Index MM* May 07 Jul 06:00 DE Industrial Output MM % Jun 07 Jul 06:05 FR Exports, EUR Approx Time bln EU May 07 Jul 06:45 FR Imports, EUR Approx Time bln EU May 07 Jul 06:45 FR Trade Balance, EUR, SA bln EU May 07 Jul 06:45 FR Trade Balance, SA MM*</td></t<>	Control Bookmarks Headline View GLOBAL ECONUMIC CALENDAR Date GMT Country Release Unit Period 07 Jul 02:00 PH Forex Reserves USD* bln \$ Jun 07 Jul 02:00 PH Forex Reserves USD* bln \$ Jun 07 Jul 04:00 TH Consumer Confidence Idx* Jun 07 Jul 05:00 JP Leading Indicator* May 07 Jul 05:00 JP Consumer Price Index MM* May 07 Jul 05:00 JP Consumer Price Index MM* May 07 Jul 05:00 JP Consumer Price Index MM* May 07 Jul 06:00 DE Industrial Output MM % Jun 07 Jul 06:05 FR Exports, EUR Approx Time bln EU May 07 Jul 06:45 FR Imports, EUR Approx Time bln EU May 07 Jul 06:45 FR Trade Balance, EUR, SA bln EU May 07 Jul 06:45 FR Trade Balance, SA MM*				

Using the IFR Markets page, users can view the different news headlines for global markets as well as the economic calendars for different countries and releases.

Note that for Alerts Morning Digests includes content submitted between 6pm to 6am. The Evening Digests include content submitted between 6am to 6pm. All times are dictated by time zone preferences as noted in Eikon.



<IFRI>

Another International Financing Review page that may be useful is the **<IFRI>** page which is essentially a News page which provides an overview with different headline news for different markets as well different asset classes.

In the Eikon Toolbar, search **<IFRI>** to open the application.





9. Zero Curve Builder <ZCBR>

- 1. In the Eikon Toolbar, type **<ZCBR>** (Zero Curve Builder)
- 2. Key in the currency needed, (i.e. <SGD>)
- 3. If you wish to choose the instruments used, click on "Instrument Selection"

ი	TC Builder	82€ =	_ 0	×
F	Forward Curve[FWDC] Swap Pricer[SWPR] Swap Curve Monitor[SWCM] Quote Curve Chart	Related Code: ZCBR		•
	Load User Curve Load Default Curve			
	Curren v: SGD Valuation Date: 16 May 2016 ZC Name: Save (Last Save: Friday, 8 August, 2014, 17:03)			
4	Calculation Parameters			
	ZC Curve Chart			

4. Select the futures, bonds or swaps desired from the list by screening through the contributors list.

Instruments Selection Webpage Dialog								
Available Items	Select Items		Selected Items					
+ Deposits			Deposits					-
Pixings			Code	Maturity	Bid	Ask	Mid	
Interest Rate Swaps			SGDOND=ICSG	17 May 2016	0.01	0.03	0.02	
Contributors - Brokers			SGDTND=	18 May 2016	0.20	0.70	0.45	
 BRKR - Brokers Composite (Composite) 			SGDSWD=	25 May 2016	0,43	0.63	0.53	
* SG,SWAP-SOURCE - Onshore (SG),SWAP		>	SGD 1MD =	20 Jun 2016	0.56	0.75	0.66	
+ ICSG - ICAP AP (ICSG)			SGD2MD=	18 Jul 2016	0.66	0.86	0.76	
 PREA - Prebon Yamane (HK) Ltd (PREA) TPI - Tullett Prebon Global (TPI) 			SGD3MD=	18 Aug 2016	0.81	1.00	0.91	
* TRDS - Tradition Singapore Ltd (TRDS)			SGD6MD=	18 Nov 2016	1.06	1.25	1,16	
* OCBC - OCBC Sin (OCBC)		>>	SGD9MD=	20 Feb 2017	1,18	1.31	1.25	
+ Fixed Rate Bonds			SGD1YD=	18 May 2017	1.19	1.38	1.28	
Enter RIC		~~~	Swaps					
			Code	Maturity	Bid	Ask	Mid	
			SGDS86SO2Y=	18 May 2018	1.54	1.57	1.56	
			SGDSB6SO3Y=	20 May 2019	1.66	1.69	1.68	
			SGDSB6SO4Y =	18 May 2020	1.77	1.80	1.79	
			SGDSB6SO5Y =	18 May 2021	1.86	1.88	1.87	-
	OK Cancel		CODERCEOTY	10 14-11 2022	2.05	2 00	2.00	

5. Save the curve and use it in different applications, e.g. Swap Pricer, Swaption, Credit Default Swap, Forward Curve etc.



10. Fixed Income Portfolio Analytics <FIPA>

An application which would prove useful for users wanting to analyse the specifics of their portfolio would be the Fixed Income Portfolio Analytics Application **<FIPA>**.

On this page, users can check of their reference data, monitor different bond portfolios as well as conduct different types of analyses such as Profit & Loss analysis, Cash Flow Analyses, Scenario Analyses etc.

We have presented two examples below of the profit & loss and the scenario analyses.

- 1. In the Eikon Toolbar, enter <FIPA>
- 2. Select a pre-determined portfolio or manually enter the data Reference Data > Portfolios > New > New Portfolio
- 3. From the left side bar, select the type of feature you would like to search.
- E.g. Profit and Loss

On this page, select the portfolio from the drop down list and select the timeframe needed. Finally press enter for the page below to appear.





Secondly, you could conduct scenario analysis on this page.

After entering the FIPA application page, do the following.

- 1. In the left column, select "Scenario Analysis"
- 2. Select the portfolio necessary and select the different scenario/scenario sets (e.g. 10BP UP_ UP 10B)
- 3. After choosing the different scenarios, select the weight you would like to issue to each scenario
- 4. Press "Calculate" and the calculator would select the total return for each scenario and show you a detailed breakdown below.
- 5. The Total Return, Horizon Yield, PVBP, DV01, Macaulay Duration and Modified Duration etc will be provided.

Fixed Income Portfolio	Analytic	cs								≡ _ ø ×
All Functions		SCENARIO ANALYS	BIS						Calcula	te 🜔 🍘
▼ Reference Data		TRDSUM_Dim Sum	Bond • Base	7/1/2016	H	orizon 10/12/2016	🛗 Report Ci	urrency	•	
Portfolios		Curve TR Market_T	R Market 🔻 Price	Default PriceSo	urce_Def 🔻					
Counterparties		Expected Return	Applycia							
Floating Rates		Scopario / Scopario S	Audiysis							
▼ Deal Capture		Scenario Name	Weight Prob	ability Tot	al Return	Horizon Yield(%)	Horizon PVBP	DV01	Horizon Macaulay	Horizon Mod
Excel Import		No Shift_No Shift		33%	38,133.43	3.5224	4.:	26 1,702.29	4.3	51
Deal Blotter		10BP UP_UP10BP		67%	21,173.43			22 1,689.43		
▼ Monitor		Europhed Deturn De	taila							
Bonds		No Shift No Shift		All						
Reminder		NO SHILL NO SHILL	TOBP OP OPTOBP	All	Position	Initial Position	Principal Amount	Initial Principal Amount	Cloan MarketValue	Initial Clean
Portfolio Apolysis		- NULL		Currency	4.000.000.00	4.000.000.00	4.000.000.00	4.000.000.00	3.945.640.00	
		= CNGV 1.000) 12/01/13 MATd	Chinese Yuan	0.00	0.00	0.00	0.00	NaN	
Profit & Loss		= CNGV 0.600	0 08/18/14 MATd	Chinese Yuan	0.00	0.00	0.00	0.00	NaN	
Cash Flow Analysis		E CNGV 1.850	0 06/29/15 MATd	Chinese Yuan	0.00	0.00	0.00	0.00	NaN	
Scenario Analysis		= CNGV 2.560	0 06/29/17	Chinese Yuan	1,000,000.00	1,000,000.00	1,000,000.00	1,000,000.00	995,260.00	
Kev Rate Exposure		= CNGV 2.650) 06/29/19	Chinese Yuan	1,000,000.00	1,000,000.00	1,000,000.00	1,000,000.00	983,750.00	
Deed Externe Undering		- CNGV 3.100) 06/29/22	Chinese Yuan	1,000,000.00	1,000,000.00	1,000,000.00	1,000,000.00	980,370.00	
Bond Futures Heaging		= CNGV 3.480	06/29/27	Chinese Yuan	1,000,000.00	1,000,000.00	1,000,000.00	1,000,000.00	986,260.00	
Value at Risk Analysis		= PDACL 5.800	0 10/28/14 MATd	Chinese Yuan	0.00	0.00	0.00	0.00	NaN	
▼ User Preferences		= BJLAN 4.750	02/21/14 MATd	Chinese Yuan	0.00	0.00	0.00	0.00	NaN	
Rate Models		= CENTL 2.700	04/28/14 MTN MATd	Chinese Yuan	0.00	0.00	0.00	0.00	NaN	
Curves		= SASAC 3.75	0 11/01/15 MATd	Chinese Yuan	0.00	0.00	0.00	0.00	NaN	
		Grand Total			4,000,000.00	4,000,000.00	4,000,000.00	4,000,000.00	3,945,640.00	
Curve Scenarios										
Price Contributors										
Application Settings										
User Defined Prices										
User Defined Bonds										
User Defined Curves										



11. Curve Chart <CURC>

Curve Chart brings together the common yield curve tasks, provides easy access to common curves and displays them from the available brokers and price contributors.

The application allows users to

- 1. View historical curves whenever possible
- 2. View and compare a large number of different yield curves from any country
- 3. Compare curves and their spread
- 4. Compare a single bond to the curves
- 5. Add and remove bonds



In the Eikon Toolbar, search **<CURC>** to open the application

- 1. Select the Country, Curve Type, Source Type, Source Name and Field
- 2. Add additional curves setting up the parameters the same way you set the parameters for the base Curve
- 3. Add spreads to compare the curves
- 4. Chart a single bond to compare it against the curves

The typical shape of the yield curve is upward so the yields increase for the bonds of higher maturities. The longer the maturity the higher is the risk of investing in the bond, hence there are higher premiums associated with the bond.



12. Interest Rate Spread Chart < IRSC>

The Interest Rate Spread Chart <IRSC> shows the difference in yields between two instruments. The application allows users to

- Browse instruments by selecting a country and a type of instrument
- View the spread between yields of two instruments
- Views the yields of individual instruments
- View tabular data and copy it is MS Excel
- View Statistics, like a moving average.

Here, traders can observe the spread between yields of different instruments and look for high and low values, basing on the assumption that there are temporary and the spread will reverse to mean over time.



In the Eikon Toolbar, search <IRSC> to open the application:

- 1. Select or enter the RIC for Instrument 1 and 2
- 2. Select Statistics and define from how many periods it should be calculated
- 3. Select the interval you want to see
- 4. Spread between yields of two instruments on a time series would be displayed in the chart

Individual yields on a time-series can be viewed as well and tabular data, can be opened by selecting the second tab. Here, you can copy the data and send it to MS Excel if needed.



13. Yield Map <YMAP>

For users who wishes to have a more visual representation of the page could utilise the Yield Map application **<YMAP>** in order to plot the different yields of bonds and swaps in order to view them visually on one page.

We will walk through the functionalities of the application.

- 1. In the Eikon Toolbar, search **<YMAP>** in order to open the application.
- 2. Select Add New Portfolio > Create Empty Table if no Portfolio is available. Alternatively, you could import or drag and drop the lists if any.
- 3. If you selected Create Empty Table, you could search for Chain Code of the Bond or select individual instruments (e.g. 0#USBMK=)

ъ.	\leftarrow \Rightarrow Q 🗵 Yield Map C' \equiv $ e^{-}$ X													
PRE		This application	n is still in develop	ment.								🗭 Send		
Last U	pdated a	at 14:22:18 12/7/2016											≡ k:	
New	/ Portfo	blio	~ 🖿 🛱 ~	♦									×	
			Name	Coupon	Maturity		Price / Upfr	Price Type	Yield, % / C	Yield Type	Compounding Type	Duration	Duration Ty	
v U	ntitled	- Bonds												
		▼ 0#USBMK=	US - BENC											
		US1MT=	US Treasury		4/8/2016	USD	99.98	Mid ~	0.26	Automa~	Native V	0.06	Macaulay~	
		US3MT=	US Treasury		6/10/2016	USD	99.93	Mid ~	0.31	Automa~	Native ~	0.23	Macaulay~	
		US6MT=	US Treasury		5/1/2017	USD	99.81	Mid \sim	0.39	Automa~	Native ~	0.48	Macaulay~	
		US1YT=	US Treasury		22/6/2017	USD	99.54	Mid \sim	0.48	Automa~	Native ~	0.94	Macaulay~	
		US2YT=	US Treasury	0.625	30/6/2018	USD	99.94	Mid V	0.66	Automa>	Native 🗸	1.96	Macaulay~	
		US3YT=	US Treasury	0.875	15/6/2019	USD	99.95	Mid ~	0.89	Automa~	Native V	2.89	Macaulay~	
		US5YT=	US Treasury	1.125	30/6/2021	USD	100.46	Mid ~	1.03	Automa~	Native ~	4.84	Macaulay~	
		US7YT=	US Treasury	1.375	30/6/2023	USD	100.65	Mid ~	1.28	Automa>	Native 🗸	6.66	Macaulay~	
		US10YT	US Treasury	1.625	15/5/2026	USD	101.63	Mid ~	1.45	Automa~	Native 🗸	9.12	Macaulay~	
		US30YT	US Treasury	2.5	15/5/2046	USD	107.39	Mid ~	2.16	Automa>	Native 🗸	21.47	Macaulay~	
.⊤ Si	waps -	Swaps												
		▼ USDIRS	USD IRS FO											
		USDAM	USD 6M AM		17/1/2017	USD	-0.00	Bid ~	0.69			0.49	Macaulay~	
		USDAM	USD 9M AM		18/4/2017	USD	-0.00	Bid ~	0.70			0.74	Macaulay~	
		USDAM	USD 1Y AM		14/7/2017	USD	0.00	Bid ~	0.72			0.98	Macaulay~	
		USDAM	USD 18M A		16/1/2018	USD	0.00	Bid \sim	0.76			1.49	Macaulay~	
		USDAM	USD 2Y AM		16/7/2018	USD	0.00	Bid ~	0.80			1.98	Macaulay~	
		USDAM	USD 3Y AM		15/7/2019	USD	0.00	Bid ~	0.85			2.96	Macaulay~	
		USDAM	USD 4Y AM		14/7/2020	USD	0.00	Bid ~	0.92			3.93	Macaulay~	
		USDAM	USD 5Y AM		14/7/2021	USD	0.00	Bid ~	0.98			4.89	Macaulay~	
		USDAM	USD 6Y AM		14/7/2022	USD	0.00	Bid ~	1.06			5.83	Macaulay~	
		USDAM	USD 7Y AM		14/7/2023	USD	0.00	Bid ~	1.12			6.75	Macaulay~	
		USDAM	USD 8Y AM		15/7/2024	USD	0.00	Bid \sim	1.19			7.66	Macaulay~	
								_						

4. Right-click on any of the data items and select "Add to Curve" and choose a curve and colour.



5. Select the button for the curve to appear as follows. This chart would show you the two yields stacked side by side by the absolute figures for the yield.



6. Right click on the curve and select Bootstrap in order to plot a zero curve out of the swap or bond





7. Alternatively, you could force a yield curve to zero in order to view how the other instrument performed relative to it.

Here, click on the arrow on the vertical axis and select I-spread. Following this, select the yield curve you would like to force to zero (e.g. the bond yield curve). The resultant chart as shown below would show how the second curve performed relative to the first with positive figures showing that the yield for the second curve was higher than the first and vice versa.





Advanced User Manual

Part 6: Commodities and Energy


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EIKON[®] COMMONLY USED CODES: COMMODITIES AND CURRENCIES

GLOBAL	
Euro Bond	FGBLc1
JGB	FYBc1
Long Gilt	FLGc1
3-Month EURIBOR	FEIc1

FINANCIALS - CURRENCIES		
Euro	UROc1	
Japanese Yen	JYc1	
Canadian Dollar	CDc1	
Swiss Franc	SFc1	

COMPOSITE TREASURY BONDS		
On the Run	Eikon	Eikon NAS
1 Month T-Bill	US1MT=RR	US1MT=RRPS
3 Month T-Bill	US3MT=RR	US3MT=RRPS
6 Month T-Bill	US6MT-RR	US6MT-RRPS
1 Year Note	US1YT=RR	US1YT=RRPS
2 Year Note	US2YT=RR	US2YT=RRPS
3 Year Note	US3YT=RR	US3YT=RRPS
5 Year Note	US5YT=RR	US5YT=RRPS
10 Year Note	US10YT=RR	US10YT=RRPS
30 Year Note	US30YT=RR	US30YT=RRPS

FINANCIALS - INTEREST RATES

Eurodollar	ECc1
US Long Bond	USc1
US Long Bond – Electronic Trading	ZBc1
2-Year T-Note - Electronic Trading	ZTc1
5-Year T-Note – Electronic Trading	ZFc1
10-Year T-Note – Electronic Trading	ZNc1
Federal Funds	FFc1

VEHICLE RETRIEVAL – RULES OF THUMB

Vehicle	Format
Class Stock	Lower case (ab)
Preffered Stock	_p
Rights	_r
warrants	_t
When Issued	_w
Units	_u
Exchange Specifc	.X (exch code)

CROSS CURRENCY

Australia Dollar – US Dollar	AUD=
Canadian Dollar – US Dollar	CAD=
Euro – Japanese Yen	EURJPY=
Euro – US Dollar	EUR=
US Dollar – Swiss Franc	CHF=
US Dollar – GB Pound Sterling	GBP=
GB Pound – Euro	GBPEURO=



ENERGY	
Crude Oil, Light	CLc1
Gasoline	RBc1
Heating Oil	HOc1
Natural Gas	NGc1

METALS	
Gold	GCc1
Platinum	PLc1
Silver	SIc1
Copper	HGc1

COMMODITIES - FOOD, MEATS & MISCELLANEOUS

Coffee C	KCc1
Сосоа	CCc1
Sugar (World)	SBc1
Orange Juice	OJcl
Cotton	CTc1
Lumber	LBc1
Live Cattle	LCc1
Live Hogs	LHc1

COMMODITIES - GRAINS & OILSEEDS		
Corn	Ccl	
Wheat	Wc1	
Soybean	Sc1	
Soybean Oil	BOc1	
Soybean Meal	SMc1	



1. Overview

Commodities are often categorized as raw or partly-refined materials, traded for processing into final goods. A very small percentage of commodities trading require physical delivery as most organizations use the exchange for hedging purposes.

There are 4 main commodities markets, namely:

- 1. Energy
- 2. Metals
- 3. Agriculture
- 4. Shipping

Commodities are either traded on an exchange or OTC, as cash or forwards and futures.

How to View Futures on Eikon

Eikon allows users to view future chain contracts as well as individual futures contracts.

1. In order to view a **future chain contract**, one can do either of the following.

A: In the Eikon Search Bar, type <0#XXX:> (XXX represents the code for the chain contracts)

B: In the Quote App (F4), type <0#XXX:> or type XXX: and press F3.

A would give you the detailed view and specifications of the contract chain, while B would provide you the prices of the chain contracts.

2. In order to view **individual contracts**, one can do A or B, replacing the search with **<XXXC1>** for the nearest live contract.

A good thing to note about futures on Eikon:

Types of Instrument	Example Code	RIC Logic
Futures Chains	0#XXX: E.g. 0#LCO:	The chain RIC shows all the live futures contracts. (0#): Indicates that it is a chain (LCO): Root Code (:): Indicates a futures chain
Individual Futures Contract	E.g. LCOZ5	The individual contract consists of the root code, the month and year of expiry. (LCO): Root Code (Z): December (5): Year 2015
Continuation RIC	E.g. LCOC1	This will show the contract closes to expiry. Once this contract expires, it will automatically roll over to display the next live contract
Expired Futures	LCOZ1^3	 (LCO): Root Code (Z): December (3): Year in the decade, 2013 (^): indicates an expired future (1): Decade. For example, here it is 10.





Spread Trading

Commodities, especially energy products, may sometimes be trade on spreads. Common spread contracts show the following,

- The difference between 2 related products
- The difference between two different delivery months of the same futures chain.

Type of Instrument	Example Code	RIC Logic
Spread Chain	0#LCO-:	(-): Indicates calendar spread contracts. Hence, the spread between different delivery months
Individual Spread Contracts	LCOV5-V6	The spread between the September 2015 and the December 2016 contracts
Crack Spread	0#1HO-CL	The difference between two different types of energy products. In this case, the crack spread between heating oil and crude oil trading on NYMEX

Crack spreads can be defined as the differential between the price of crude oil and petroleum products. Hence it involves buying crude oil, and simultaneously selling products, or vice versa. This could allow refineries to lock-in a crude oil price and heating oil and unleaded gasoline prices simultaneously in order to establish a fixed refining margin. Thus, it is a hedging tool.

Options on Futures

Type of Instrument	Example Code	RIC Logic
Options Chains	0#LCO+:	(+): Options on futures chains all end with +
	0#LCO++	++: At the money options

OTC Instruments

Type of Instrument	Example Code	RIC Logic
OTC Commodities	0#FO-E	This is used to separate information regarding type, term, delivery method and quality. The example shows all fuel oil in Europe FO: Fuel Oil E: Europe
OTC Commodities	FO35-C-NWE	FO35: Fuel Oil with API 3.5% C: Cif (Cost Insurance and Freight). The price includes delivery as compared to FOB (Free on Board) NWF: Location North Western Europe



2. Interactive Map <MAP>

The Interactive Map function on Eikon is a good visual display of all the key factors that affect the supply chain and prices of commodities trading. On the Interactive Map Application, one can view the refineries or different production facilities, and filter out those which are closed or under construction. As shown in the screen shot below, these are the oil refineries currently which are under maintenance.



- 1. In the Eikon Toolbar, search MAP to open the Interactive Map Application.
- 2. In the Add tab, choose the data sets you which to search on
- 3. Filter each data set in the Layer tab.
- 4. Set alerts for any notifications that you wish to be notified about.
- 5. Take a screenshot and save an image of the current view with the button in the upper right corner.

For information about Vessels, there are often two fields of concern

- 1. AIS Draft (m): This shows the current depth of the vessel
- 2. Max Draft (M): Maximum depth the vessel can travel at

These two figures would reflect the weight of cargo on board. (<70%: usually empty and >97%: full)



3. Commodities Market Overview Application <COMO>

Another useful app for Commodities traders would be the COMO application.

On this application, users can get a quick overview about all essential information about a certain commodity.

There are three main markets covered, agriculture, oil and metals.

Through the various tabs, users can obtain a composite view of the market, as well as look into different Quote pages for spreads, swaps and basic treasury information.





4. Charting for Commodities

Commodity Forward Curve Application <COFC>

Using Eikon, one can plot the forward curve of different chain contracts using the **<COFC>** application.

🚼 Commod	ity Forward C	urve												Ē	3 -€ ≡	_ °	×
															Related Code	e: COFC	-
BR	ENT CR	UDE (USD / Barre	el)												3	
Updated at 11:28:53 AM																	
Type Instrument Code or Select Instrument from a List Commodity Instruments List																	
0#LC	0:	34 ~~	Load Saved Curve	e Curve Name		Sav								Trade Da	te: 20 Jun 2016		
			-										Use Thom	ison Reuters Fair Values IT	Available On	Om	
Currer	tcy: USD	Settings	Apply Currency Co	onversion Unit	: Weight		onne	Settin	ngs 🔲 Apply	y Unit Convers	sion <u>Table</u>	<u>Parame</u>	eters				
Table																	
🗹 Input Tab	ole Column Settir	nas 🔲 (Dutout Chart 🗹 🗹	Output Table Re	duced View	Decimals: 1	increase / De										
Drag and dr	on columns to ch	ange their (order in the table														
Priority on	dere Thomson De	ange uten o	Value Internolati	ion mode: linear							v to Cliphoard	My Curve	Tenors: CReduc	ed C Extended			
			react polace	Input Table					Clos	se/Settle Date	: 19 Jun 2016	ing carre		Output 1	able (My Curve	e)	
Exclude	RIC	Tenor	Maturity	TR Fair Values	%Chng.	Close	Settle	Volume	Open Int.	Time	Composite	Tenor E	xpiration Date	Composite Fwd Curve	Calculated Bid	Calcula	te
	LCOFVc1	AUG6	30 Jun 2016 🛤		0.94	49.17	49.17				49.63	1W	27 Jun 2016				
	LCOFVc2	SEP6	29 Jul 2016 🛗	50.21	0.92	49.75	49.75			11:28	50.21	2W	05 Jul 2016	49.73	49.73	1	
	LCOFVc3	OCT6	31 Aug 2016 🛗	50.55		50.10	50.10				50.55		11 Jul 2016	49.85	49.85		
	LCOFVc4	NOV6	30 Sep 2016 🛗	50.88	0.91	50.42	50.42			11:28	50.88	1M	20 Jul 2016	50.03	50.03	0	
	LCOFVc5	DEC6	31 Oct 2016 🛗	51.28		50.83	50.83				51.28		22 Aug 2016	50.46	50.46		
	LCOFVc6	JAN7	30 Nov 2016 🛗	51.58	0.90	51.12	51.12			11:28	51.58	ЗM	20 Sep 2016	50.77	50.77		
	LCOFVc7	FEB7	29 Dec 2016 🛗	51.78		51.33	51.33				51.78		20 Oct 2016		51.14	E Contraction	
	LCOFVc8	MAR7	31 Jan 2017 🛗	51.99	0.87	51.54	51.54			11:28	51.99	5M	21 Nov 2016	51.49	51.49	0	
	LCOFVc9	APR7	28 Feb 2017 🛗	52.16							52.16				51.72		

In order to generate the following chart, one should type **<COFC>** in the Eikon Toolbar.

In the app, the following could be customized.

- 1. Instrument Chain Code
- 2. Currency
- 3. Units
- 4. Whether to use Thomson Reuters Fair Values

Check the "Output Chart" box and the following forward curve will be generated.





Seasonal Analysis Chart <SEAC>

Using the seasonal analysis chart **<SEAC>** application, one can plot the different prices of the contract on each day across different years. (E.g. the price of the contract every year on 14 January). This allows analysts and traders to observe the trend of prices within the year as well as comparing it to past trends.



- 1. In the Eikon Toolbar, search <SEAC> to open the application
- 2. Select the contract (continuation code) you would like to view, e.g. LCOC1
- 3. Select the number of years to include
- 4. If you require the historical average, high low bands etc, select the options in "Analysis Options"

This shows for example 5 successive years of the front month contract for Brent Crude Oil. Here, you can analyze the performance and trend for prices each year.



Term Structure

Using the term structure of a contract would allow you to see whether the market is in Backwardation or Contango. The terms are defined below.

Contango: Market situation where the nearby price is lower than a further forward price. (Denoted by "c-" in the quote)

Backwardation: Market situation where a nearby price is higher than a further forward price. (Denoted by "b+" in the quote)

Term structure is usually used to monitor commodity markets where holding costs such as insurance and storage costs may cause distant futures prices to be at a premium to nearby futures prices.

1. Press F10 to open the chart app.

2. Type: 0#LCO: or 0#XXX: to pull up the default chart which is the term structure.



Hence, here we observe that the prices are in Contango, where the nearby contracts have lower prices than further futures. Hence the cash price is at a discount to the futures prices, or the nearby futures are at a discount to the distant futures. The last price and the previous close lines are sloping up.

One may observe that the term structure is similar to a yield curve but whilst the yield curve shows the yields of a single instrument over time, the term structure shows the different prices of chain contracts over time.



Commodity Spread Chart <SPDC>

The Commodity Spread Chart **<SPDC>** could be utilized to show a simple spread between any two, three of four commodity instruments and calculates the difference in the yield of those instruments. Traders can utilize the futures spread in an arbitrage technique where they buy one commodity and sell another contract of the same commodity to capitalize on price differences.

On this note, let us first define the 3 most common types of spreads in commodities.

1. Crack spread: As defined previously, the crack spread is the price differential between crude oil and one of its by-products, primarily gasoline, gas oil and heating oil.

2. Crush spread: Differential between soybean futures and soybean meal and oil futures - represents the premium inherent for processing soybeans

3. Spark spread: differential between natural gas and a unit of electricity, for gas-fired power stations.

Other spreads available in the SPDC app include

4. Crude spreads; the differential between different crude oils (WTI v Brent etc)

5. Different Agriculture Softs spreads (Coffee, Cocoa and Sugar).

Alternatively, the user can define any spread he wishes with the SPDC app.

In order to utilize the application in Eikon, the following steps could be performed.

- 1. In the Eikon toolbar, search <SPDC>
- 2. Under Spread Category, choose the type of commodity required (E.g. Energy, Agriculture etc).
- 3. Under Spread Type, choose one of the 5 types as explained above or a used-defined spread
- 4. Choose the instrument type (Futures or Calendar Strips)
- 5. Select the interval of time and the currency and unit

6. Set the two contracts, whether to buy or sell crude and to buy or sell gasoline, gas oil and heating oil.

Refer to the next page for the screenshot of the application



Chapter 6: Commodities and Energy



One may realize that the interface of the SPDC application largely resembles that of the F10 Chart interface.

On this application, you are also able do different types of technical analysis, such as plotting trend lines, or Fibonacci retracements and projections.





Part 6A: Energy Market



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EIKON[®] Eikon shortcuts: **Energy**

REAL TIME MONITORING			
ALT	Alert Manager		
COPM	Commodities Prices Monitor		
MON	Monitor		
OPW	Option Watch		
Q	Quote		
QL	Quote List		
QLI	Quote Line		
TICK	Ticker		

NEWS	
NEWS	News Monitor
TOPNEWS	Top News

CHARTING	
CHT	Chart App
SPDC	Commodity Spread Chart
FWDC	Forward Curve
VOLC	Volatility Chart
TEAC	Technical Analysis Chart
REBC	Rebasing Chart

ANALYTICS & CALCS			
AVRG	Average Calculator		
CALC	Eikon Calculators		
CFTC	Commodity Futures Trading Commission		
COCM	Commodity Curve Monitor		
COFC	Commodity Forward Curve		
COOA	Commodity Options Analyzer		
COSP	Commodity Swaps Pricer		
CSPD	Cross-Commodity Spreads		
ESPD	Energy Spreads		
HURRICANE	Hurricane Tracker		
MAP	Interactive Map		
MAPTRK	Interactive Map Asset Tracker		
OSPD	Oil Spreads		
OSWO	Oil Swaps Overview		
TANK	US Weekly Oil Stocks Estimates (API, EIA)		
UKGSS	UK Gas Supply and Status		
UKPSS	UK Power Supply and Status		
VOLS	Volatility Surface Calculator		

MARKETS - O	L
BRENT	Brent Crudes Guide
CRUDE	Crude Guide
CRUDEDUB	Dubai Crudes Guide
CRUDEUS	US Light Sweet Crudes Guide
DIESEL	Diesel Guide
EWFO	Platts eWindow Market Data – Asia Financial – Fuel Oil – Daily Report
EWFP	Platts eWindow Market Data – Asia Physical Products – Fuel Oil – Daily Report
EWIN	Platts eWindow Market Data
FUELOIL	Fuel Oil Guide
GASHEAT	Gas Oil / Heating Oil Guide
GASOLINE	Gasoline Guide
JETFUEL	Jet Fuel Guide
LIQPETRO	Liquified Petroleum Gas Guide
NAPHTHA	Naphtha Guide
OILOUT	Fundamentals Database and Refinery Outages
OSWO	Swaps Overview
PETRO	Petrochemicals Guide
REFINED	Refined Products Guide



MARKETS - PO	DWER
IIRPWR	IIR Power Outages
POINTCARBON	PointCarbon
POWAUS	Power – Australia
POWBEL	Power – Belgium
POWBRA	Power – Brazil
POWCAISO	Power – CAISO (California ISO)
POWCAN	Power – Canada
POWCEEUR	Power – Central and Eastern Europe
POWCHE	Power – Switzerland
POWCZE	Power – Czech Republic
POWEBL	Energy Bank Link (EBL)
POWERCOT	Power – ERCOT
POWESP	Power – Spain
POWEUR	Power – Continental Europe
POWFRA	Power – France
POWGER	Power – Germany
POWITA	Power – Italy
POWNLD	Power – Netherlands
POWNOR	Power – Norway
POWNORDIC	Power – Nordic
POWPNW	Power – PNW (Northwest)
POWRENEW	Power – Renewables
POWSWE	Power – Sweden
POWTUR	Power – Turkey
POWUK	Power – United Kingdom
POWUSA	Power – United States

MARKETS - GAS			
GASEUR	Gas – Continental Europe		
GASUK	Gas – United Kingdom		
GASUS	Gas – USA		

MARKETS - COAL				
COALAUS	Coal – Australia Guide			
COALCHN	Coal – China			
COALEUR	Coal – Europe Guide			
COALZAF	Coal – South Africa Guide			
COALUS	Coal – United States Guide			

MARKETS - CARBON				
CARBAMER	Carbon – Americas Guide			
CARBAPAC	Carbon – Asia-Pacific Guide			
CDMJI	Carbon – CDM/JI Guide			
CARBCM	Carbon – Crediting Mechanisms Guide			
CARBEUR	Carbon – Europe Guide			
CARBGCP	Carbon – Global Climate Policy Guide			
CARBNEWC	Carbon – New Credits Guide			
CARBNAOFF	Carbon – North America Offsets Guide			

SEARCH TOOLS

ANSWERS	Eikon Answers
ENESRCH	Energy – Advanced Search
OILREF	Oil Refineries Advanced Search
PHYSICALSRCH	Commodities Physical Assets – Advanced Search
WEATHERSRC	Weather – Advanced Search



1. Energy Homepage

Overview

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ном		TRIES V NEWS AND RESEARCH V MY EIKON V REUTERS INS										
EN	ERGY OIL +							2				
	erview Pricing Analysis	Supply / Demand Production Storage Flows Refit	nina	Tools								
							_					
▼ (CRUDE	ENERGY TOP NEWS	0	IL IN CONTEXT			e ?	C THOMSON REUTERS				
	Global Market	SAUDI ARABIA'S CRUDE OIL EXPORTS FALL IN		Name		Latest		BE THE FIRST TO KNOW!				
	Americas	DUBAI, June 20 (Reuters)	6	ICE Brent Crude		50.36		Register for our email alerts and be the first to know when the latest Research & Forecasts energy analysis is published in Elkon.				
	Asia	Marathon Oil deal latest big Oklahoma bet by U.S. drillers	6	NYMEX Light Sweet		49.15						
	Europe, Middle East & Africa	NEW YORK/BENGALURU, June 20 (Reuters)	e	DME Oman Crude		47.15						
	REFINED PRODUCTS	Exxon Torrance crane collapse shakes refinery operations, sale -sources	•	TR/CC CRB Index	194.	.4062	1.0558 %	FORECASTS				
	Summary		6	US 10Y T-bonds	99	9*21½	0.08 %	Please use the Flows tab to access all Trade Flows				
	Light Distillates	COLUMN-Oil prices under pressure as hedge funds adjust	-	DJ Ind. Av.	17,8	04.87	0.73 %	pages.				
	Liquified Petroleum Gas	positions LONDON, June 21 (Reuters)	e.	Euro / Dollar		.1336	0.23 %	THOMSON REUTERS OIL RESEARCH & 🖪 😫				
	Gasoline	Oil prices fall for first time in three days	A	SSET PERFORMANCE			e ?	Click on the top right icon to access past editions				
	Naphtha	TOKYO, June 21 (Reuters)	_ [LCOc1 35 09% .D II 2 18	% EU	R=4 37%	Value %	X US CLEAN PRODUCTS AND CRUDE SWAPS - JUN 20, 2016				
	Middle Distillates	CRUDE OIL LATEST NEWS 🖉 🔮					USD	21-Jun-2016 (Thomson Reuters Oil Research & Forecasts)				
	Diesel	NHC STORM ADVISORY: Danielle moving inland over		TRJCRBTR 10.52%	0=21.29%	٨	45%	Marks as of 1300 Houston. Fuel oil: US fillo up across the board; Clean: GC gas weighed down amid bearish ()				
	Gas Oil / Heating Oil	eastern Mexico 21-Jun-2016 10:32:29 RTRS			. ^	$\sqrt{\sqrt{2}}$	35.09%	🔀 US FUEL OIL SWAPS - JUN 20, 2016				
	Jet Fuel	*TOP NEWS* Energy			Mahn		21.29%	21-Jun-2016 (Thomson Reuters Oil Research & Forecasts) Marks as of 130p and 4p Houston.				
	Heavy Distillates	21-Jun-2016 10:15:39 RTRS		m			10.52%	DAILY US OIL SWAPS REPORT - JUN 20, 2016				
	Fuel Oil	TECHNICALS-Brent oil may retrace to \$49.90 before rising	9 🏑	- And	man	for	2.18%	20-Jun-2016 (Thomson Reuters Oil Research & Forecasts) Clean: GC gas weighed down amid bearish gasoline stocks				
	Petrochemicals	21-Jun-2016 10:02:48 RTRS	- 1	and the second second			-5%	poll; Fuel oil: Some GC time spreads tighten on crude move				
		TECHNICALS-U.S. oil may test \$50.16 after a moderate		V V V			-15%	EMEA OIL SWAPS FORWARD CURVES - 20 JUNE				
		21-Jun-2016 09:27:56 RTRS					-25%	2016				
		TOP NEWS Commodities		Jan-Mar 2016	Apr-Jur	n		Oil up as Brexit chances begin to dim				
		21-Jun-2016 09:00:35 RTRS		2014 20	15		111	ASIA OIL SWAPS FORWARD CURVES				
		WORLD OIL MARKET OVERVIEW	0	IL WATCH			e ?	20-Jun-2016 (Thomson Reuters Oil Research & Forecasts) Prices up on weaker US dollar and easing Brexit concerns				
		Oil prices fall for first time in three days 21-Jun-2016 08:59:07 RTRS		Name	Latest	Net	%	THOMSON REUTERS OIL RESEARCH & 🖪 💡				
		UPDATE 8-Oil up 3 pct as Brexit chances dim: gasoline		ICE WTI/Brent spread	-0.59		14.49 %	Click on the top right icon to access past editions				
		surges too		ICE GO	450.50			US WEEKLY CRUDE IMPORT MARKET REPORT – 20				
	21-Jun-2016 04:34:32 RTRS			ICE GO Crack	10.3951	+0.24	2.36 %	JUNE 2016 20-Jun-2016 (Thomson Reuters Oil Research & Forecasts)				
		U.S. CRUDE OIL FUTURES SETTLE AT \$49.37/BBL, UP \$1.39, 2.90 PCT CLc1 LCOc1		NYM. HO No 2	1.5194			The Thomson Reuters Oil Research team forecast the weekly Energy Information Administration's (FIA) PADD III import				
		21-Jun-2016 02:30:42 RTRS		NYM. HO No 2 Crack	14.7800			figure for the week ()				
		MOST READ OIL NEWS IN THE LAST 24 ?		ICE HO/GO Spread	0.09			C EUROPE WEEKLY OIL FLOWS - JUN 13-19				
		Last updated 10:46		NYM. RBOB G.	1.5732			Thomson Reuters Oil Research & Forecasts analysis of vessel				
		UPDATE 8-Oil up 3 pct as Brexit chances dim;		NVM RROR G Crack	17 1000			bbls ()				

The energy homepage contains a quick overview of all necessary information that a typical user would require. By default, the page is set to open at Crude Oil, Global Market page.

Key information on this page include top news of the Energy market, as well as key oil prices and spreads as well as latest news about crude and the world oil market.

From this page, users can navigate to other pages within Eikon such as different types of energy products as well as to view information about the pricing, supply and demand of oil as well as production, storage and flows.

We will now look at the flows portion in detail.





Oilflow

To arrive at this page, go to Home> Asset Classes> Commodities> Energy> Oil> Flows

් 🕂 🔶 🔁 World Flows	Explorer Crude Oil Flows O	il Energy					C ≡	_ & ×		
ENERGY OIL .										
Overview Pricing Analysis S	Supply / Demand Production Stor	rage Flows Refining Tools								
▼ CRUDE OIL	WORLD FLOWS EXPLORER									
	Product									
Flows Explorer	Product Unknown Oil	× Crude Oil × Fuel Oil ×								
Seaborne Imports	Grade Grades		Volume From	÷ To	~					
 Seaborne Exports 										
 Americas (CUSTOMS) 	Load (Supply)			Discharg	je (Demand)					
Asia	Country / Region Select country o	r region Port	Select port	Country	Region Select country or r	egion F	Port Select port			
 Middle-East Russia 	Period All		Date from 🛗 Date to 🛗		Period All	D	ate Date from			
V DISTILLATES	Vessel			Parties						
 Americas (CUSTOMS) 	Class All	Status	Select status		Issuer Issuer name					
🕨 Asia	Name Vessel name	IMO	Vessel IMO		harterer Charterer name					
▼ GASOLINE										
 Americas (CUSTOMS) 					Awardee hame					
V FUEL OIL	Display									
Americas (CUSTOMS)	O Volume O Count	Volume Count Volume as Kilotonnes (K) Group by Departure date Arrival date								
Asia	Search Decet				Show	u selected in Interactive man (to Evcal		
VAPHTHA	Search Reset				310	w selected ininteractive map v				
Asia	400k									
 LPG (BETA) 	200k									
METHODOLOGY										
	2 _{0k}									
	Oct 2015	Nov 2015 Dec 2015	Jan 2016 Feb 20	16 Mar 2016	Apr 2016	May 2016 Jun 2016	Jul 2016 Aug	2016		
			Search returned more that	n 20,000 entries. Ple	ase refine your search.			×		
	Total : 2,031,148.0 kilotonnes (kt),	count: 20,000								
	Showing 1 - 50 out of 20000 record	is 50 $$					1 2 3 4 5 6	5 7 Last		
	Load Port	Load Location	Discharge Port	Discharge Location (Volume kilotonnes (kt))	Grade Departure Date	e Arrival Date▼ Vessel	Vessel IMO		
	Discharging in August 201	6, Total: 2,300 kilotonnes (kt), count: 1	9							
	▶ 🔲	Caribbean (Other)	Singapore	Singapore	270 Fuel Oil	Fuel Oil 30/6/201	6 18/8/2016 POWER D	92411		
	▶ ■	Caribbean (Other)	Singapore	Singapore	270 Fuel Oil	Fuel Oil 30/6/201	6 18/8/2016 XIN LIAN YAN	G 96140		
	▶ 🔲	Caribbean (Other)	Singapore	Singapore	270 Fuel Oil	Fuel Oil 29/6/201	6 13/8/2016 OLYMPIC LUC	к 94242		
		Caribbean (Other)	Singapore	Singapore	270 Fuel Oil	Fuel Oil 25/6/201	6 9/8/2016 GENER8 HER/	97231		
	Hound Point	United Kingdom		China	280 Crude Oil	Forties 19/6/201	6 5/8/2016 SARA	95377		
	▶ 🔲	Caribbean (Other)	Singapore	Singapore	270 Fuel Oil	Fuel Oil 21/6/201	6 5/8/2016 MT SOLANA	93953		
	Rotterdam	Netherlands	Singapore	Singapore	270 Fuel Oil	Fuel Oil 21/6/201	6 5/8/2016 FRONT PAGE	92484		
	Cayo Arcas	Mexico	Daesan	South Korea	270 Crude Oil	Maya 12/6/201	6 4/8/2016 KARAN	93842		
	Mina Al Fahal	Oman		Asia	130 Crude Oil	Crude Oil 6/7/201	5 1/8/2016 NORDIC 7FNI	TH 95884		

Using the Energy Homepage > Flows, one is able to reach the above page.

In this application, users are able to choose specific oil products in different areas of the world in order to view an overview of vessels that are likely to dock at those ports or about to leave those ports. These information are collated from the vessels' crew themselves or the ports and thus the amount of information available may differ from vessel to vessel or location to location.

The Interactive Map could also be employed here in order to view the likely path travelled by the vessel where users can analyze the potential risks that the vessels may face, such as piracy and weather threats.

This would allow analysts to forecast potential delays in delivery, which may affect the supply of oil and subsequently the price of oil as well.



2. Oil Fundamental Database and Outages <OILOUT>

For users who want a historical record as well as future forecast of oil refinery outages, the Oil Fundamental Database and Outages, **OILOUT** application would be a key application to look at. Whereas Interactive Map (**MAP**) only provides a real-time view, **OILOUT** would be a good application for users to observe past trends of outages and its impact on oil production and price.

To arrive at the following page,

- 1. In the Eikon Toolbar, type <OILOUT>
- 2. Toggle with the different settings such as the data source, geographic area and the date range.





3. Oil Spreads <OSPD>

The oil spread calculator enables trades to monitor various types of spreads such as those between

- 1. Crude Oil
- 2. Oil Products
- 3. Crack Spreads
- 4. Fractional Spreads: Profit margin for a gas processor (revenue from LNG minus cost of Natural Gas)

## C	Dil Spre	eads													6	2 - E	= _	– ×
		Curve Chart	[FWCC] Ma		[COMO] Averag		or [AVRG]	Options Analy	er [COOA]							Relat	ted Code	: OSPD
	Spreads: NYMEX/ICE 1:1 WTI Spd (Fut.) (R:1) Simple																	
	Crude Oil Oil Products Cracks Fracs																	
	Sample	es NYMEX/IO	CE 1:1 WTI Spre	ead (Fut.)	Spre Spre	ad Formula 1	Type $f_{\rm fc}$ (Sir	mple	Alw.	ays Use Fa	ir Value	es if Availa	ble 이 O	n 🔍 Off	Trade	Date	22 Jun 2	016
• •	pread	Formula																
		Buy/	/Sell Ratio	RIC	Change	Source	Nan	ne Na	tive CCY	Native l	Jnits	Field	U	lse Fair Va	alues			
	Contrac	ct #1: Sell	1.00	0#CLF	V: 🔢 🚧 🛛 🔎	TRC	1: WTI Crude	: ≘ (NYM)	USD		Barrel	Default						
	Contrac	ct #2: Buy	1.00	0#WTCLF	V: 🔢 🛩 🔎	TRC	2: WTI Crude	: (IEU)	USD		Barrel	Default						
Sr	read D)ividing Rat	io 1.00															
	i cuu b																	
	arame	eters																
	Forwa	ard Spreads	Table Forw	ard Spreads Cha	rt Historical Chart													
		and opreduc					070											
Re	duced V	/iew	Box Spreads	Interpolate	Align by Maturi	ty Show	RIC											
ľ	ecimais:	Spreads	Decrease	USD/BBL	1: WTT Crude (NY	(Decrease M) USD/B	BL Z	ecimais: Increase): WTI Crude (II	USD/BI	ગ								
	N	lumber	Period	Value	Maturity	Drice		Maturity	Drice									
	~?	#1	Month	0.00	18.2 AU	36 50	.04 1 194		G6 50	04 1								
	~~	#2	Month	0.00	18.2 SE	P6 50	.63 L 194	S	P6 50	63 L								
	~~	#3	Month	0.00	18.2 OC	T6 51	.08 L 1	00	T6 51	08 L								
	~~	#4	Month	0.00	18.2 NO	V6 51	.51 L 🔐	NC	V6 51	51 L								
	~~~	#5	Month	-0.01	19-7 DE	C6 51	.88 L 19	DE	C6 51	89 L								
	~~	#6	Month	0.00	18-R JA	V7 52	.19 L 🔐	AC	N7 52	19 L								
	~~		Month	-0.01	18.2 FE	B7 <u>52</u>	.39 L 🏨	FE	B7 52	.40 L								
_	~~	#8	Month	0.00	18.2 MA	२७ 52	.56 L 1	MA	R7 52	.56 L								
Nor	~~	#9	Month	0.00	18:8 AP	۲7 52	.67 L 🏨	AP	R7 52	67 L								
1th	~~~	#10	Month	-0.01	18:6 MA	Y7 52	.75 L 많	MA	Y7 52	.76 L								
S	~~	#11	Month	0.00	18:6 JU	N7 52	.83 L 🏦	UC	N7 52	83 L								
	~*	#12	Month	0.00	18:6 JU	L7 52	.87 L 19	JL	L7 52	87 L								
	~~	#13	Month	0.00	18:6 AU	G <b>7</b> 52	.90 L 18:	AU	G7 52	.90 L								
	~~	#14	Month	0.00	18:6 SE	P7 52	.96 L 提	SE	P7 52	.96 L								
	~~	#15	Month	0.00	18:6 OC	T7 53	.03 L	00	T7 53.	03 L								
	~*	#16	Month	0.00	18:6 NO	V7 53	.13 L 🏭	NC	V7 53.									
	~~		Month	-0.01	18:2 DE	C7 53	.20 L 많	DE	C7 53.									
	~~	#18	Month	-0.01	18:6 JA	V8 53	.23 L 많	AC JA	N8 53	24 L								

To arrive at the above page,

- 1. In the Eikon Toolbar, enter < OSPD>
- 2. Choose the type of spread you would like to monitor (from 1-4 above)
- 3. Choose the contracts you would like to view (e.g. NYMEX/ICE 1:1 WTI Spread (Fut.))
- 4. The spread formula allows you to choose a type of calculation formula (simple or complex)
- 5. Define the contract (which to sell and which to buy)
- 6. View the underlying prices, calculated spreads and intermonth spreads.
- 7. If the chart is needed, you could view the historical chart or the forward spreads chart.



#### 4. Oil Swaps Overview <OSWO>

The Oil Swaps Overview page gives a one page overview of the different swaps available for different intracommodity and intercommodity swaps. E.g. Brent-WTI swaps and Crude-Fuel Oil swaps or calendar swaps which are swaps between the contracts expiring in July and Aug. The page is a read-only page where details on the page cannot be customized. However, by default, different swaps are provided as shown in the main page snapshot below and the specific market snapshot in the next page.

😑 OilSwa	apsOverv	iew [Rea	d-Only]																			
Oil S	wap	os O	ver	view			Ch	ange M	arket:	Main			·									?
	-									Main												
								Fuel C	lil											_		
OILSWAP	/SG	S:	INGAPOF	RE SWAPS						Napht Gas O	ha											<b>_</b>
08:00			CRUDE				UELOIL	1		Jet Fu	e			DIST	ILLATE					NA	РНТНА	
USD	BRT Fut	BRT sw	BRTsw	Dubai		F018	)	FO	380	FO EW	SG	Gasoil	SG 10	PPM GO	SG	Jet Ke	ero	GO sw	NAPH C	FR JP	FOB SG	E-W
			VS IDUBsw	ISWAP FF	-   S I SWAP	CRACK	CRACK	SWAP	VIS	IDTEE		CRACK	ISWAP	DIFE		REG (	RACK	VS IIG0 sw	  SWAP	CRACK	ISWAP	DIE
	/BBL	/BBL	1	/BBL	]/T	VDUB	VBRT	I/T	/T		/BBL	/BBL	/BBL	/BBL	J/BBL	/BBL /	BBL	1/T	/T	vs BRT	/BBL	011
RALMO	_	0 50 59	1 2 92	46.76	1250.0	1 . 9 2	1 - 12 12	1245 76	4 25	1 10 00	1 59 9	5 11 50	1 50 /	0 1 05	1 59 00	0 55	12 14	1-14 79	482.2	5 .2 55	1 45 60	11
jun/jul	-	-0.64	1 3.62	0.14	-2.0	0	-12.12	-1.75	4.23	115.00	0.2	0	0.1	.0 1.03	0.12	0.33	12.14	-14.75	0.0	0	0.00	**
JUL16	-	51.22	4.60	46.62	- 252.0	1 -7.8	5 -12.45	247.51	4.50	20.25	58.1	5 11.53	59.2	7 1.12	58.78	0.63	12.16	-18.14	432.2	5 -3.19	45.60	13
jul/aug	-	-0.38	1 4 63	-0.36	-2.2	5		-2.00	4.75	1 20 50	-0.1	3	-0.1	3	-0.36			0.00.00	-1.2	5	-0.10	
aug/sep	-0.64	-0.33	4.02	40.98 3.5   -0.37	1 -2 2	5 -7.8	0 -12.48	1 -1 75	4.75	120.50	0 1 -0 1	8 11.30 4	0 1 -0 1	4	0 39.14	0.80	12.10	-20.29	433.5   -2 0	0 -3.43 0	45.70   -0.10	15
SEP16	51.22	51.93	4.58	47.35 3.7	9 256.5	1 -7.8	-12.47	251.26	5.25	20.75	58.4	2 11.07	59.6	2 1.20	59.53	1.11	12.18	-23.07	435.5	- 0 -3.54	45.80	17
sep/oct	-0.38	-0.42	1	-0.40	-2.2	5		-2.00		1	-0.1	4	-0.1	4	-0.16				-1.5	0	-0.10	
0CT16	51.60	52.35	4.60	47.75 3.8	2 258.7	6 -7.9	-12.54	253.26	5.50	21.00	58.5	6 10.81	59.8	6 1.30	59.69	1.13	11.94	-25.18	437.0	0 -3.79	45.90	16
NOV16	51.93	52.67	4.50	-0.42   48.17 3.8	31261.2	6 -7.9	8 -12.48	1255.26	6.00	121.50	58.9	6 10.79	1 60.3	8 1.42	60.05	1.09	11.88	-24.52	438.5	0 -3.95	46.05	16
nov/dec	-0.42	-0.22	1	-0.32	-2.5	0		-2.25			-0.4	0	-0.4	0	-0.35				-1.7	5	-0.20	
DEC16	52.35	52.89	4.40	48.49 3.9	3 263.7	6 -7.9	-12.31	257.51	6.25	22.25	59.3	6 10.87	60.8	7 1.51	60.40	1.04	11.91	-24.18	440.2	5 -3.97	46.25	16
dec/jan	-0.32	-0.19	1 4 20	-0.31   48 80 8 0	-2.5	0	12 . 12	2.50	6 25	121.25	-0.3	0	0.3	0	-0.40	1 14	12 00	24 66	-1.5	0	-0.20	16
ian/feb	-0.22	-0.17	1 4.20	48.80 3.9   -0.20	1 -1.7	5	-12.12	1 -1.75	0.23	21.23	1 -0.3	0 10.80	-0.3	0 1.00	1 -0.35	1.14	12.00	-24.00	-0.2	5 -4.00 5	-0.20	10
FEB17	52.89	53.25	4.25	49.00 3.9	2 268.0	1 -7.7	-12.02	261.76	6.25	21.25	59.9	6 10.96	61.4	8 1.52	61.15	1.19	12.15	-24.75	442.0	0 -4.14	46.65	15
feb/mar	-0.19	-0.16		-0.19	-1.7	5		-1.50			-0.2	4	-0.2	4	-0.24				0.5	0	-0.05	
MAR1/ mar/anr	-0.17	53.41	4.22	49.19 3.8   -0.21	5 269.7	6 -7.6	9 -11.91	263.26	6.50	21.50	0.2	0 11.01 4	01.6	4 1.44	01.39	1.19	12.20	-24.90	441.5	0 -4.35 5	46.70	15
APR17	53.25	53.58	4.18	49.40 3.8	1 271.2	6 -7.6	-11.85	264.51	6.75	21.50	60.4	4 11.04	61.7	5 1.31	61.60	1.16	12.20	-24.88	440.7	5 5 -4.61	46.75	15
apr/may	-0.16	j -0.18	i –	-0.25	-1.5	0		-1.25		i i	j -0.2	6	j -0.2	6	j -0.29			i i	0.2	5	-0.05	
MAY17	53.41	53.76	4.11	49.65 3.7	4 272.7	6 -7.6	9 -11.80	265.76	7.00	21.75	60.7	0 11.05	61.9	1 1.21	61.89	1.19	12.24	-24.70	440.5	0 -4.82	46.80	15 🚽
•																						•
Reuters	Energy I	nternat	ional N	ews Service	-						Asia (	)il Produ	ct Swa	aps Mar	ket Rep	ort		_	_	_	_	_
11:30:41 9	P47		RTRS -	TOP NEWS' As	an Comp	anies				_	No Res	ults Found	4									
11:24:48	6808	LIK	RIRS-	TOP NEWS -FR	nt Page							and Found										
11:18:30	-午 3883	I.HK	RTRS - HK Exchange says 14 firms buy back shares QUICK_TIPS LABEL:																			
11:16:56	·午 9984 0700	.T ).HK	RTRS - BREAKINGVIEWS-SoftBank's mixed signals prevent market upgrade QUICK_TIPS.DUPLICATED_SOURCES																			
11:12:08	上午 LCOd JPY=	:1	RTRS - GLOBAL MARKETS-Asia stocks inch up, nerves fray ahead of Brexit     OUICK_TIPS.CHECK_CORRECT_SPELLING     OUICK_TIPS.CHANGE_SEARCH_MODE																			
11:08:16	-午		RTRS -	TOP NEWS*-Ag	icultural (	Commodi	ies				0110				FEDENCE							
11:06:49	上午 0#W:	0#S:	RTRS -	GRAINS-Corn tio	ks up fror	n 1-mth lo	w, wheat fi	rms after 2	days of	falls	Guid	K_HPS.OF	CIN_SE/	ARCH_PRE	FERENCE:	)						
11:06:02	- 午		RTRS -	TOP NEWS* Eu	o Zone						QUIC	K_TIPS.SV	VITCH_T	O_GLOBA	L_PRESS							
11:00:12	-午		RTRS -	TABLE-Weekly J	apan oil s	tatistics to	June 18				QUIC	K_TIPS.OF	PEN_HEL	P								
			RTRS -	JAPAN NAPHTH	A STOCK	S RISE 46	000 KL T0	0.1.58 ML	<b>VINWEE</b>	K TO												



	Overview [H	kead-Oniyj										
Oil Sw	aps	Overvi	ew		Change	Market: Crude	9	A: AS Assessment at 0330 GMT S: AS Settlement at 0830 GMT				
ICE Brent / Du	ibai					L		P: EU Assessment at 1130 UKT E: EU Settlement at 1630 UKT				
ICE Pront	Euturoc											
ICE Brent	rutures											
ICE Brent Fut.	Brent Ti	me Spd.					_	Daily SG CAL BRT AUG16 18/12/2014 - 21///2016 (GMT)				
	Real Time	vs. Asian Settle	Time	Latest Fixed Val	ue Asian Settle	European Settle	Units	USD				
AUG16	50.85	0.65	13:47	A 50.82	50.20	49.94	BBL	ВЫ				
SEP16	51.47	0.64	13:46	A 51.43	50.83	50.59	BBL	Mu Muntur Jones 50.85				
OCT16	51.85	0.68	13:37	A 51.85	51.17	50.98	BBL	-40				
NOV16	52.17	0.67	13:42	A 52.17	51.50	51.32	BBL	30				
DEC16	52.58	0.67	13:46	A 52.59	51.91	51.74	BBL	Auto				
JAN17	52.89	0.68	13:46	A 52.84	52.21	52.05	BBL	J F M A M J J A S O N D J F M A M J J   Q12015   Q22015   Q32015   Q42015   Q12016   Q22016				
Dubai Sw	aps							Dubai Swaps Dubai Swaps Fwd Curve				
Dubai Swaps	Dubai Tim	e Sod						Daily 5G DUB 5W JUL16 18/12/2014 - 21/7/2016 (GMT)				
	Real Time	vs. Asian Settle	Time	Latest Fixed Val	ue Asian Settle	European Settle	Units	Line, SG DUB SW JUL16				
OCT16	48.04	0.70	13:37	A 48.04	47.34	47.15	BBL	- 1,22/0/2010, 40:01W				
NOV16	48.39	0.71	13:43	A 48.39	47.68	47.49	BBL	46.81				
DEC16	48.71	0.73	13:47	A 48.72	47.98	47.81	BBL					
JAN17	49.01	0.75	13:47	A 48.96	48.26	48.09	BBL					
FEB17	49.27	0.77	13:43	A 49.22	48.50	48.35	BBL	Auto				
MAR17	49.51	0.78	13:43	A 49.46	48.73	48.59	BBL	j Ė M Á M J J Á Š Ó N Ď J Ė M Á M J J I 012015   022015   032015   042015   012016   022016				
Exchange	of Futur	es for Swap	5					EFS FESE Fund Qurve				
FES								Daily SG DUB FFS AUG16 [8/12/2014 - 21/7/2016 (GMT)]				
	Real Time	vs. Asian Settle	Time	Latest Fixed Val	ue Asian Settle	European Settle	Units	Line, SG DUB EFS AUG16 Price				
AUG16	3.61	0.01	11:42	A 3.61	3.60	3.55	BBI	-22/6/2016, 3.61 050 3.61 050				
SEP16	3.83	-0.03	11:42	A 3.83	3.86	3.81	BBI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
OCT16	3.81	-0.02	11:42	A 3.81	3.83	3.83	BBL	h m the same -2				
NOV16	3.78	-0.04	11:42	A 3.78	3.82	3.83	BBL	I I WHITE ALL ALL AND A AL				
DEC16	3.87	-0.06	11:42	A 3.87	3.93	3.93	BBL	Auto				
JAN17	3.88	-0.07	11:42	A 3.88	3.95	3.96	BBL					
Middle East	/ Asian Ca	ish Crude Mar	ket Rep	ort				01 2015   02 2015   05 2015   04 2015   01 2016   02 2016				
21 六月2016								Set Forward Curves Vesterday Today 1 Week Ago				
06:08:17 晚上	RTRS		Middle Ea	st Crude-Dubai weak	ens despite Shell	l's purchases						
20六月2016								JI Month Ago JUser Date 31/12/2012 ▼				
06:06:12 晚上	RTRS		Middle Ea	st Crude-Dubai falls f	or 7th session; M	urban's discount w	dens					

On the page for specific markets, the list of contracts across time and the charts for the price of the first month contract and its forward curves can be seen.

To navigate to the Oil Swaps Overview page, one should do the following.

1. In the Eikon Toolbar, enter <**OSWO**>

2. In the "Change Market tab", one can specify the type of market they are interested in.



Part 6B: Metals Market



# THOMSON REUTERS

# **EIKON**[•] Eikon shortcuts: **Metals**

REAL TIME MONITORING							
COPM	Commodities Prices Monitor						
LMEO	LME Overview						
OPW	Option Watch						
Q	Quote						
QL	Quote List						
QLI	Quote Line						
SDB	Sidebar						
TICK	Ticker						

NEWS	
NEWS	News
TOPNEWS	Top News
OPECO	Organization of the Petroleum Exporting Countries
CONM	Commodities News Monitor

CHARTING	
SPDC	Commodities & Energy Spread Chart
FWDC	Forward Curve
FWCC	Forward Curve Chart
METO	Metals Outrights

ANALYTICS A	ND CALCS
ASPD	Agriculture Spreads
AVRG	Average Calculator
CALC	Eikon Calculators
COCM	Commodity Curve Monitor
COSP	Commodity Swaps Pricer
CSPD	Cross-Commodity Spreads
EWIN	Platts eWindow Market Data
MAP	Interactive Map
MSPD	Metals Spreads
POWPJM	Power – PJM
TANK	US Weekly Oil Stocks Estimates (API, EIA)
VOLS	Volatility Surface Calculator
MAPTRK	Interactive Map Asset Tracker
HURRICANE	Hurricane Tracker
CFTC	Commodity Futures Trading Commission
FRGHT	Shipping

METALS	
LMEO	LME Overview
ALUM	Metals – Aluminium Guide
BASEMET	Metals – Base Metals Guide
COPPER	Metals – Copper Guide
GOLD	Metals – Gold Guide
IRONSTEEL	Metals – Iron & Steel Guide
LEAD	Metals – Lead Guide
MINORMET	Metals – Minor Metals Guide
OTHERMET	Metals – Minor Metals, Ores, Scrap
	and Secondary Guide
NICKEL	Metals – Nickel Guide
PALLAD	Metals – Palladium Guide
PLAT	Metals – Platinum Guide
PRECMET	Metals – Precious Metals Guide
SILVER	Metals – Silver Guide
TIN	Metals – Tin Guide
URANIUM	Metals – Uranium Guide
ZINC	Metals – Zinc Guide
METO	Metals Outrights
MSPD	Metals Spreads
MET	Metals Fundamental Database
GFMSPREC	GFMS Precious Metals
GFMSBASE	GFMS Base Metals
GFMSAU	GFMS Gold
GFMSCU	GFMS Copper



#### METALS – APPS & TOOLS FOR INDIVIDUAL METALS (IE XAU=, XAG=) Note: In order to see the tools select the metal by hitting the down arrow and then hit the <space> bar. e.g. "XAU= OV" or "Gold OV"

OV	Overview
QH	Quote History
CHTV	Chart (Commodities Chart view)
ETFH	ETF Holdings
GFMS	GFMS
VOLC	Volatility Chart

#### COMMODITY FUTURES - APPS & TOOLS FOR INDIVIDUAL METALS (IE XAU= , XAG=)

OV	Overview
QH	Quote History
CHTV	Chart (Commodities Chart view)
CS	Contract Specifications

#### MISC - CONTEXTUAL ITEMS FOR COMMODITIES

Q	Quote
CHT	Chart (Chart object)
NEWS	News
REBC	Rebasing Chart
TEAC	Technical Analysis Chart
HRA	Historical Return Analysis
REGR	Regression Analysis
TAS	Time & Sales comonent



#### 1. Metals Fundamentals Database

The Metals Fundamentals Database provides essential. Up-to-date global statistics for all know aluminium, copper, zinc, lead, nickel, platinum and gold operations around the world.

To arrive at the following page, one can do the following

Home>Asset Classes> Commodities> Metals> Fundamentals Database

OR to search <Metals Fundamentals Database> in the Eikon Toolbar.

ം ← →		Q 🔣 V	World View   Notes   Fundamentals Database   Me	tals			C'≡	_ ø	
				DER TRADING V FINANCIAL IN		Updated 2	2-Jun-2016 15:14		¢
META	LS FUND	AMENTALS DA	TABASE - WORLD VIEW -						
Notes	5 Years Produc	tion/Capacity	Metals Comparison Top 10 China Import/Exp	ort					
NOTE		anoth capacity in							
NOTE	S – Basen	netais, [All Metais]	j, [All Plant Types], Tonnes						
Commod	lity:	Metal:	Plant Type: Measureme	nt Unit					
Base Me	etals 🔻	[All Metals]	<ul> <li>[All Plant Types]</li> <li>Tonnes</li> </ul>	<ul> <li>Update View</li> </ul>	×				
World - Bas	se Metals (2016)	C. C.							
ð,	1		AGGREGATED DATA (TONNE 1000S)				201	16 🔻	
			Metal (Refined)		Capacity	Production	Сар	acity %	
<b>~</b>	<u>a</u> 📜				29,319	22,672		77.33	
			Lead		14,222	11,176		78.58	
		V' 🚺	Nickel		2,765	1,942		70.24	
	- <b>T</b>		Primary Aluminium		66,256	53,462		80.69	
_			Zinc		16,847	13,786		81.83	
LATECTA	1514/6								
Displayin	NEWS						Drov 4 Novte		
Displayi	ig i-tu lecolus	0			Note		Fiev I Nexts	Last»	
Metal	Plant Type	Country	Plant Company	Plant Name	Note				
MAL	5101	China	vanous	vanous Primary Aluminium	+ 21-Jun-2016 COLL Andy F	JMN: in aluminum market its still China v Home	ersus rest of work	<b>0</b> -	
MCU	MINE	Australia	Independence Group NL		• 21-Jun-2016 Goldc	corp Inc says to acquire 10.9 mln shares (	of Independence	Gold	
MCU	MINE	Argentina	Minera Alumbrera Ltd		• 21-Jun-2016 Goldc	corp Inc says to acquire 10.9 mln shares (	of Independence	Gold	
MCU	MINE	China	Various		• 21-Jun-2016 Copp	er market in 40,000 tonnes deficit in Mar	2016 – ICSG		
MCU	REF	China	Various		• 21-Jun-2016 Copp	er market in 40,000 tonnes deficit in Mar	2016 – ICSG		
MCU	MINE	Philippines	Carmen Copper Corp		🛨 21-Jun-2016 Philip	pines' Duterte says to review mining proj	ects		
MAL	SM	Russia	AO Novokuznetsk Aluminium (NkAZ)		+ 20-Jun-2016 Rusal	I may cut capacity if aluminium falls below	w \$1,500/T -RIA		
MAL	SM	Russia	United Company RUSAL		+ 20-Jun-2016 Rusal	I may cut capacity if aluminium falls below	w \$1,500/T -RIA		
MAL	SM	Russia	AO Krasnoyarsk Aluminium (KrAZ)		+ 20-Jun-2016 Rusal	I may cut capacity if aluminium falls below	w \$1,500/T -RIA		
MPB	REF	Kazakhstan	Kazzink		■ 17-Jun-2016 Kazal	khstan's Jan-May 2016 refined lead outp	ut up 48 pct yr/yr		

Information on the Fundamentals Database is derived from industry experts, Reuters editorials, Company News Releases and Archived news.

On the Fundamentals Database, users can view information about the different production plants in different parts of the world or to refer to the plant view for key notes, an aggregate database of the past 5 years production capacity, comparison between metals etc.

For example, users can find the name of the South African plant with the second highest platinum production figures amongst 2016 estimates and the plant's shareholding companies and the breakdown of holdings.

Also, shareholder production reports can also be retrieved to find the percentage of a certain metal attributable to individual companies.



#### **Mine Economics**

Another page where users can obtain information about Metal Fundamental Data is the GFMS Mine Economics Page. This page provides users data on gold mines, such as detailed production and cost forecasts for the next 15 years, for over 350 major gold mines and projects globally.

To reach the following page,

Users can search <MINECS> in the search bar OR

Home> Asset Classes> Commodities>	Metals>	Precious	Metals>Mine	Economics
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ආ ← → Q Ⅲ M	line Economics   Mine Index   Pr	ecious Metals   Metals				C ≡	— в ×
HOME ASSET CLASSES V COUNTRIES V						Updated 22-Jun-2016 16:09	Refresh 🚯
METALS PRECIOUS METALS -	SUMMARY -						
Overview News Pricing Analysis	Supply & Demand Mine Econ	omics Tools Meet the Tea	am				
MINE							
						🛞 Open in Inte	eractive Map
ADVANCED SEARCH	Mine 🔺	Country		Asset Shareholders		Status	Primary Produc
	Annew/i awlers	Hol	ding (%)	Name Cold Fields Ltd		Operating	GOLD
	Agua Rica	Argentina	100.00		-	Feasibility	GOLD
	Ahafo		90.00	Newmont Govt of Chana	NEM.N	Operating	GOLD
			100.00	Private investor(s)	_ 0vb-6h	Operating	GOLD
		Ghana	100.00	Newmont	JEM.N	Operating	GOLD
			100.00		POLYP.L	Operating	GOLD
			100.00	Petropavlovsk		Operating	GOLD
			100.00			Historic	GOLD
			50.00 37.50 12.50	GlencoreXstrata Goldcorp Yamana Gold	– 클 G.TO 클 YRI.TO	Operating	GOLD
			100.00		angj.j	Operating	GOLD
		Colombia	100.00		EOM.TO	Feasibility	GOLD
			100.00		JUEV.LM	Operating	GOLD
			100.00		JE TSG.L	Operating	GOLD
			100.00		E LGC.TO	Operating	GOLD
			100.00			Commissioning	GOLD
			100.00			Operating	GOLD
			100.00		E LION.SI	Operating	GOLD
			100.00		🖶 HARJ.J	Operating	GOLD
			100.00		JAMARA.L	Feasibility	GOLD
	Barberton	South Africa	100.00	Pan African Resources	Je PANJ.J	Operating	GOLD
	Batu Hijau	Indonesia	35.44 27.56 20.00 17.00	Newmont Sumitomo Corp PT Pakuafu Indah Private investor(s)	■ NEM.N ■ 8053.T -	Operating	GOLD
			100.00		# BCD.AX	Historic	GOLD
	Beatrix		100.00	Sibanye Gold Limited		Operating	GOLD
			99.00			Operating	GOLD
			100.00			Operating	GOLD
			90.00 10.00	Resolute Mining Ghana Government		Care and maintenance	GOLD
	Bingham Canyon	United States	100.00	Rio Tinto	.æ RIO.L	Operating	GOLD

Under Mine Index, a detailed overview of different mines, their countries and their shareholders can be found. From here, we can view the statuses of these mines.

Under country analysis, we can view the All-in-Cost curves of different countries and to find out how a certain country compares to other countries and which country has the highest gold mining costs.

Lastly, advanced search would allow you to search up on specific mines, countries and companies.



GFMS provide independent analysis and research into the metals markets combined with outlooks and forecasts covering all key traded metals over a wide range of forward and historic periods.

The list of GFMS Pages available on Eikon is as follows. Simply search the respective code (located in the first column) in the Eikon Toolbar for the individual pages.

GFMSPD	GFMS Palladium Homepage	Palladium market commentary and research homepage from GFMS.
GFMSPREC	GFMS Precious Metals Homepage	Precious Metals Analysis and research from GFMS
GFMSBASE	GFMS Base Metals Homepage	Base Metals Analysis and research from GFMS
GFMSPT	GFMS Platinum Homepage	Platinum market commentary and research homepage from GFMS.
BASEMINEC	GFMS Mine Economics: Copper	Thomson Reuters Copper Cost Service, updated on a quarterly basis from company releases to provide the market the most current operating and cost data.
GFMSAG	GFMS Silver Homepage	Silver market commentary and research homepage from GFMS.
GFMSCU	GFMS Copper Homepage	Copper market commentary and research homepage from GFMS
GFMSAU	GFMS Gold Homepage	Gold market commentary and research homepage from GFMS
GFMSZN	GFMS Zinc Homepage	Zinc market commentary and research homepage from GFMS

On the individual Eikon pages, a summary of the supply and demand of the various types of metals can be seen. Also, a price comparison of different similar metals (e.g. all the base metals) are presented in a chart for easy comparison and analysis. The official 3M contract on LME is also presented for the users to view together.





#### 3. News

There are 3 common ways for users to obtain Reuters News on all metals, namely, base, precious and minor metals.

1. Press F9 to open the News App and search the specific metals' news you are interested in

_ර ා 🥃 Nev	vs: Metals	Markets [METL] AN	D Base Metals [BASMTL] AND (English OR Korean) $\equiv$ _ $\Box$ ×
▼ ‡ ←	⇒ Q	Metals Markets	AND 🗸 Base Metals X 🗐 🗾
Time	Source	RICs	Headline
		CHZHY.PK 1333.HK	DJ HK Bourse: Announcement From China Zhongwang Holdings Ltd4- 1333.HK CHZHY.PK
		PMA702 PMA700	PLATTS: 702Heard in the markets (from p701) PMA0700 PMA0702
		PMA702 PMA701	PLATTS: 701Heard in the markets (from p700) PMA0700 PMA0701
		PMA701 PMA700	PLATTS: 700–Heard in the markets 108: Platts IO: 62.7%-Fe Australian Newman fines – A cargo heard offered at \$54/dmt CFR Qingdao on PMA0700
			CHINA ZHONGWANG HOLDINGS LTD 1333.HK SAYS YINGKOU ZHONGWANG ENTERED INTO YINGKOU- HEAVYMACH CONTRACTS WITH SINO-HEAVYMACH 1333.HK
		PMA180 PMA0180	PLATTS: 180-Asia physical premiums: India's Vedanta offers 15,000 mt aluminum ingot PMA0180
			CHINA ZHONGWANG HOLDINGS LTD 1333.HK - DEAL FOR TOTAL CONSIDERATION OF RMB3.13 BLN 1333.HK
			CHINA ZHONGWANG - YINGKOU ZHONGWANG, A WHOLLY-OWNED SUBSIDIARY OF THE COMPANY, ENTERED INTO YINGKOU- TAIZHONG CONTRACTS WITH TAIZHONG BINHAI 1333.HK
			CHINA ZHONGWANG HOLDINGS LTD 1333.HK - PANJIN ZHONGWANG ENTERED INTO PANJIN-TAIZHONG CONTRACTS WITH TAIZHONG BINHAI 1333.HK
			PURCHASE OF ALUMINIUM EXTRUSION PRODUCTION EQUIPMENT(with URL) 1333.HK
			CHINA ZHONGWANG-PURCHASE OF ALUMINIUM EXTRUSION PRODUCTION EQUIPMENT 1333.HK 1333.HK
		PMA702 PMA700	PLATTS: 702Heard in the markets (from p701) PMA0700 PMA0702
		PMA702 PMA701	PLATTS: 701Heard in the markets (from p700) PMA0700 PMA0701
			PLATTS: 700Heard in the markets 107: Platts IO: 61%-Fe Australian Pilbara Blend fines Caroo bid at

2. Use the Advanced News Search function.

Home> News and Research> Advanced News Search

co ← →			Q 冟	Advanced	News Sea	irch					C	; ≡		æ ×
Home	Asset Classes	v Cour	ntries 🔻 📔	News and Re	esearch 🔻	My Eikon 🔻	Reuters Inside	r Trading v	Financial Institutions		Updated 22-Jun-2016			•
ADVA	NCED N	EWS	SEAF	RCH										
CRITER	IA													
	Search for :				Headlin	nes Only 🍥	Headlines and	Story Text						
	Companies:		<any></any>											
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Busin	ess Sectors:		<any></any>											
Ģ	Seographies:		<any></any>										Reset	
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	Languages:		<any></any>										Reset	
	Sources:		<any></any>											
	Reports:		<any></any>										Reset	
Select D	ate / Range :	From		<b>2</b>	hh:mm	J To	ا ا	🖞 hh:mm	[dd-MMM-yyyy]					
		Searc	h											



3. View Top News to find specific news on that market

Home> News and Research> Reuters Top News> Commodities Markets



Alternatively, going to the Homepage for the different metals would display the top news for each metal type as well.





### 4. London Metal Exchange

The London Metal Exchange is the largest market of exchange for base metals, with over 80% of all base metal futures businesses transacted on it.

There are three trading methods at the LME; the Ring, 24 hour telephone and LME Select.

**Ring Trading** 

During Ring Trading, an open outcry takes place in a ring where each base metal trades for 5 minutes in the ring, twice in the morning and twice in the afternoon.

The different times for Ring Trading can be obtained through the following steps.

1. Press F4 to open the quote app

2. Type <LME/TIMES1> for the morning ring session timings and <LME/TIMES2> for the afternoon timings

Note that other than the 4 ring sessions, there is also something called KERB trading. KERBS are trading periods in between the ring sessions where all metals are traded simultaneously by all traders. This takes place twice a day at 13.25-14.45 and 16.15-17.00.

cP ← → 🔡 LME/TIMES1 Quote > Q ∨ LME/TIMES1	Q
The London Metal Exchange - Tradi	ng Times LME/TIMES1
============== LME MORNIN	G TRADING TIMES ====================================
Global Inter-office Trading:	Available 24 hours a day
LME Ring	Available from 11:40 - 17:00 (London time)
Steel Billet	11:40 - 11:45 \
NAASAA & Al.Alloy	11:45 - 11:50 \
Tin:	11:50 - 11:55 \
Primary Aluminium:	11:55 - 12:00 \ 1st Morning
Copper:	12:00 - 12:05 / Ring Sessions
Lead:	12:05 - 12:10 /
Zinc:	12:10 - 12:15 /
Nickel:	12:15 - 12:20 /
Cobalt & Molybdenum	12:20 - 12:25 /
INTERVAL	12:25 - 12:30
Copper:	12:30 - 12:35 (Officials) \
NAŠAA & Al.Alloy	12:35 - 12:40 (Officials) \
Tin:	12:40 - 12:45 (Officials) \
Lead:	12:45 - 12:50 (Officials) \
Zinc:	12:50 - 12:55 (Officials) / 2nd Morning
Primary Aluminium:	12:55 - 13:00 (Officials) / Ring Session
Nickel:	13:00 - 13:05 (Officials) /
Premium Aluminium	13:05 - 13:10 (Officials) /
Steel Billet	13:10 - 13:15 (Officials) /
Interval:	13:15 - 13:25
MORNING KERB:	13:25 - 14:45

Inter-Office Trading

This is the 24 hour telephone market ran by LME Brokers

#### LMEselect Trading

LMEselect is the exchange operated electronic trading platform which operates from 01:00 - 19:00 London Time



#### 5. Metals Outright and Arbitrage <METO>

The Metal Outrights calculator allows users to calculate real-time and historical swap points, cross swap points and outrights for commodity contracts on standard maturities and broken dates. It also calculates forward forwards on broken dates, and pricing, sensitivity, and hedging information for options on commodities contracts.

🚼 Metals Ou	utright and	l Arbitrag	je		Q								
Forward Cu	rve Chart [F	WCC]		ls [MSI	PD]   LME (	Overview [LM	EO]   Fair Va	lues METAL	./FV   Comm	odity Optio	ns Analyzer [CO	OA]   Option (	Calculator [OPTC]
	ghts: L	.ME A	luminiu	n								Updated at	?) 9:34:24 AM
	Market: Bas	se Metals		Tra	de Date: 23	Jun 2016	dda 	Currer	ncv: USD 🔽			3M ALUMIN	
Con	tract A: LM	E Aluminiur	n 🔽 🔡									Bid	Ask
								Benchmark R	IC: Fair Value	LME 3M	MALOUTES	1,628.00	1,629.50
Outrights		No Arbitra	ige		Spread Arbit	rage	Ratio	Arbitrage					
- Calculati	on Parame	ters											
Lon	ng Periods:	No		м	etal Display:	Bid/Ask	▼						
Interpolatio	n Method:	Linear		Bid/Ask	Spread (A):	Native							
Calen	ndar Style: I	LME Calend	dar 🔻										
Dete Tek	- · -												
Data Tab													
Calenda	ar Style: Li	4E		_		( <b>)</b>		···>		(			
	Period	Cash	End Date	Days	Outright	s (USD)	Intermonth	i (USD)	Bmk Spread	(USD)			
		UII 16	27 Juli 2016	23	1,619.75	1,620.75	-4.00	-2.00	-0.25	-5.75			
	۵	UG16	17 Aug 2016	51	1.625.25	1,626.25	-3.50	-1.50	-2.75	-3.25			
		SEP 16	21 Sep 2016	86	1,629.25	1.630.25	-5.00	-3.00	1.25	0.75			
		3M	23 Sep 2016	88	1,628.00	1,629.50			0.00	0.00			
	c	OCT16	19 Oct 2016	114	1,630.75	1,631.75	-2.50	-0.50	2.75	2.25			
	N	IOV16	16 Nov 2016	142	1,632.75	1,633.75	-3.00	-1.00	4.75	4.25			
	0	DEC 16	21 Dec 2016	177	1,634.75	1,635.75	-3.00	-1.00	6.75	6.25			
	]	JAN17	18 Jan 2017	205	1,635.25	1,636.25	-1.50	0.50	7.25	6.75			
	F	FEB17	15 Feb 2017	233	1,637.75	1,638.75	-3.50	-1.50	9.75	9.25			
	M	IAR 17	15 Mar 2017	261	1,640.25	1,641.25	-3.50	-1.50	12.25	11.75			
	F	APR 17	19 Apr 2017	296	1,645.50	1,647.30	-4.25	-2.25	19.24	17.76			
		UN17	21 Jun 2017	359	1,649.24	1,650.26	-4.02	-1.98	21.24	20.76			
	-	SEP 17	20 Sep 2017	450	1.658.24	1.659.26	-10.02	-7.98	30.24	29.76			
	C	DEC17	20 Dec 2017	541	1,666.99	1,668.01	-9.77	-7.73	38.99	38.51			
	Μ	IAR 18	21 Mar 2018		1,677.98	1,679.02	-12.03	-9.97	49.98	49.52			
	j	JUN 18	20 Jun 2018	723	1,688.73	1,689.77	-11.79	-9.71	60.73	60.27			
= Tools Broke	Rows: Inser	t / Delete Average	Outrights D Average Swap	ecimals: Chai									
	End		End Date	Dave	Outriabl		Rmk Spro	ad (usp)					
	1M1	5D 崗	17 Aug 2016	51	1,625.25	1,626.25	-2.75	-3.25					
	9	10D 🛗	21 Sep 2016	86	1,629.25	1,630.25	1.25	0.75					
		3M 🛗	21 Sep 2016		1,629.25	1,630.25	1.25	0.75					
		7M 🛗	18 Jan 2017	205	1,635.25	1,636.25	7.25	6.75					
		6M 🛗	21 Dec 2016	177	1,634.75	1,635.75	6.75	6.25					

To arrive at the calculator, simply type **<METO>** in the Eikon Toolbar.

Users may find the METO outlay to be largely similar to that of the SPO application. However, whilst the SPO calculator is limited to calculating swap points and outrights of different currency pairs, the METO calculator is able to calculate arbitrage opportunities of spread and ratio arbitrage. More will be covered within this section.



#### Calculating Forwards

To utilize the METO calculator for non arbitrage situations, the following information should be specified.

- 1. Market: Base, Precious Metals or Steel
- 2. Which contract is being traded.
- 3. Trade Date

The figures for different periods would be presented. One thing to note is the "BMK Spread" located in the last column. This represents the spread between the 3M forward and the chosen maturity. The 3M forward for commodities is the benchmark rate.

#### Calculating Arbitrage

When a commodity future is offered on more than one exchange, a trader may be able to earn spread arbitrage by buying the commodity on one exchange and selling on the other. It is also possible to earn ratio arbitrage by buying and selling similar commodity futures in different currencies. For such contracts, METO calculates these two arbitrage amounts and provides a breakdown of the costs involved in making the trade.

Currently, there are 4 contract pairs available for spread and ratio arbitrage.

- 1. LME Aluminium v SHFE Aluminium
- 2. LME Zinc v SHFE Zinc
- 3. LME Copper v SHFE Copper
- 4. LME Copper v CMX Copper

Note that ratio arbitrage with a commodity is similar to foreign exchange arbitrage since the spread is earned by taking advantage of a difference in the prices of the currencies used by contracts A and B.

Choose: A/B to display the arbitrage as a spread on CurBCurA and vice versa.

**Spread and Ratio Arbitrage** can only be conducted with Base Metals as Precious Metals and Steel is only available for outright calculations.

#### Spread Arbitrage

To utilize the METO calculator to calculate spread arbitrage opportunities, the following can be done

- 1. Set the market to "Base Metals"
- 2. Choose the contract you would like to trade
- 3. Choose the trade date
- 4. Specify the arbitrage currency

The spread arbitrage would be displayed in the last column.



#### Ratio Arbitrage

	Metals Outright and	Arbitrage				× 冟 He	lp I Commodity Ca	lculators I Meta	ls Outrights I (	Calculating Prec	cious M × +						
ං		Q														Б2-	: ≡
	orward Curve Cha	t [FWCC]	Metals Spread	Is [MS	PDI LME	Overview (LME	O]   Fair Values	METAL/FV		y Options Ana	lyzer [COOA]   C	ption Calcula	ator [OPTC]		Related	Code: MET	0 🔶
	Outrights	LME	Aluminiun	n											3		
	LME														Updated at 10:32:14 A!		
	Market:	Base Metal	s 🔽	Bu	y/Sell		ade Date: 23 Jun	2016 🛗			Arbitra	age Display:	VB				
	Contract A:		im 🔽 🔢	Buy	~									ontract(s) Cur	rency: Native		
	Conduct A.										Art	itrage Unit: T	onne 🔽	Contract(s	) Unit: Converted		
	Contract B:	SHFE Alumi	num 💽 👪	Sell													
	Outrights	No Arbi	trage		Spread Arbi	rage	Ratio Arbi	trage									
	Include Taxes and	Costs in Art	bitrage														
	Price Adjustments	D	Topium		Outcharg	o   Eoo			Freight	Costs	Dution	VAT					
	A 1947 Aluminium				Outcharg		s (For example,	rob rees)	rreight		Duties						
	A. LMC Aluminium		0.00 USD/TONNE	<u>ا ا</u>	0.00 05		0.00 050/1		0.00	USD/TONINE	0.00 %	0.0	<b>U</b> 76				
	B. SHFE Aluminum		0.00 CNY/TONNE		0.00 CN		0.00 CNY/T	ONNE	0.00	CNY/TONNE	0.00 %	17.0	0 %				
ę	Calculation Para	meters															
	Long Period	: No			Metal Display:	Bid/Ask											
	Interpolation Method	: Linear		Bid/As	k Spread (A):	Native		Bio	d/Ask Spread	(B): Native							
	Calendar Style	: LME Cale	endar 💽														
1	Data Table	Show	Non-Adjusted Price	es Colu	umn 🗹 Show	Costs Columns	s 🕑 Show Adjust	ed Prices Colur	nns* 🔲 Soh	ve For Outrights	s* LME Aluminium	Ľ					
	*Price Adjustmer					A. LME Alumir	ium USD/TONNE			B. SHFE Alumi	inum CNY/TONNE		CNY/USD	CNY/USD	CNY/USD		
	Period		End Date	Days	Outrights	Fixed Costs	Variable Costs	Outrights*	Outrights	Fixed Costs	Variable Costs	Outrights*	FX Outrights	Ratio	Currency Arbitrage		
		101 16	27 Juli 2016		1,621.75	0.00	0.00	1,621.75	12,679.35	0.00	0.00	12,679.33	0.1521	0.1279	0.0242		
		AUG16	17 Aug 2016	51	1.627.25	0.00	0.00	1.627.25	12,289,43	0.00	0.00	12,289,43	0,1518	0,1324	0.0193		
		SEP 16	21 Sep 2016	86	1,631.25	0.00	0.00	1,631.25	12,106.79	0.00	0.00	12,106.79	0.1516	0.1347	0.0168		
		OCT16			1,632.75	0.00	0.00	1,632.75	11,996.21	0.00	0.00	11,996.21	0.1514	0.1361			
		NOV16	16 Nov 2016	142	1,634.75	0.00	0.00	1,634.75	11,944.17	0.00	0.00	11,944.17	0.1512	0.1369	0.0144		
		DEC16			1,636.75	0.00	0.00	1,636.75	11,920.94	0.00	0.00	11,920.94	0.1510	0.1373			
		JAN17	18 Jan 2017		1,637.25	0.00	0.00	1,637.25	11,925.00	0.00	0.00	11,925.00	0.1509	0.1373			
					1,639.75	0.00	0.00	1,639.75	11,925.00	0.00	0.00	11,925.00	0.1507	0.1375			
		MAR 17	15 Mar 2017		1,642.26	0.00	0.00	1,642.26	11,915.00	0.00	0.00	11,915.00	0.1505	0.1378			
		APR 17	19 Apr 2017		1,645.51	0.00	0.00	1,645.51	11,916.43	0.00	0.00	11,916.43	0.1503	0.1381			
		MAY17	17 May 2017		1,648.26	0.00	0.00	1,648.26	11,813.06	0.00	0.00	11,813.06	0.1502	0.1395	0.0107		
		JUN17	21 Jun 2017		1,651.26	0.00	0.00	1,651.26	11,954.19	0.00	0.00	11,954.19	0.1500	0.1381	0.0118		
		SEP 17	20 Sep 2017	450	1,660.26	0.00	0.00	1,660.26	12,321.13	0.00	0.00	12,321.13	0.1488	0.1347	0.0140		
		DEC17	20 Dec 2017	541	1,669.02	0.00	0.00	1,669.02	12,688.06	0.00	0.00	12,688.06	0.1487	0.1315	0.0171		
		MAR 18	21 Mar 2018	632	1,680.02	0.00	0.00	1,680.02	13,055.00	0.00	0.00	13,055.00	0.1480	0.1287	0.0193		
		JUN 18	20 Jun 2018		1,690.78	0.00	0.00	1,690.78	13,421.94	0.00	0.00	13,421.94	0.1473	0.1260	0.0214		
9	Tools Rows: In	sert / Dele	ete Outrights De	ecimals	s: Increase /	Decrease											

The layout of the spread and ratio arbitrage calculators are similar with the last three columns being absent in the spread arbitrage calculator, instead being replaced by a "Spread Arbitrage" column instead.

To utilize the METO calculator to calculate ratio arbitrage opportunities, the same information should be entered into the calculator.

- 1. Set the market to "Base Metals"
- 2. Choose the contracts to be traded
- 3. Choose the trade date
- 4. Select whether you want taxes and costs to be included in the arbitrage
- 5. Include any freight and outright fees.



#### 6. Metals Spreads <MSPD>

Users may utilize the metal spread calculator to hedge or speculate in the commodity market by viewing how the price of 1 metal performs against another. This provides an estimate on future price direction.

On Eikon, type **<MSPD>** in the Eikon Toolbar to open the calculator to bring up spreads for the following Base and Precious Metals.

#### Base Metals

- 1. LME/NYMEX 1:1 Copper Spread
- 2. NYMEX/SHFE 1:1 Copper Spread
- 3. LME/SHFE 1:1 Copper Spread
- 4. LME/SHFE 1:1 Aluminium Spread
- 5. LME/SHFE 1:1 Zinc Spread
- 6. Base Metals Intermonth

**Precious Metals** 

- 1. MCX-Comex 1:1 Gold Spread
- 2. NYMEX 1:1 Plat/Gold Spread
- 3. NYMEX 1:1 Silver/Gold Spread
- 4. TOCOM 1:1 Plat/Gold Spread
- 5. TOCOM 1:1 Silver/Gold Spread
- 6. NYMEX/TOCOM 1:! Gold Spread
- 7. NYMEX/TOCOM 1:! Silver Spread
- 8. NYMEX/TOCOM 1:! Platinum Spread
- 9. NYMEX/TOCOM 1:! Palladium Spread
- 10. Precious Metals Intermonth

Spreads: MCX-COMEX 1:1 Gold Spread (R:1) Simple	228 AM 2016 xists for this R
Spreads: MCX-COMEX 1:1 Gold Spread (R:1) Simple 2000 Detailed 1:10:00 Seventials Sevent	28 AM 2016 xists for this R
Spreads: MCX-COMEX 1:1 Gold Spread (K:1) Simple base Metals Some Maxes Some M	:28 AM n 2016 xists for this R
Base Metals       Precious Metals         Samples       MCK-COMEX 1:1 Gold Spread       Spread Formula Type 1/2: Simple       Always Use Fair Values if Available • On • Off       Trade Date       23 Jun 2016         pread formula       Buy/Sell       Ratio       RIC       Change       Source       Name       Native CCY       Native Units       Field       Use Fair Values         Contract #1:       Sell       1.00       0#MAU:       MCI       1: IN MCK Gold       INR       Tola       Default       ✓       No fair value curve exists f         Contract #2:       Buy       1.00       0#GCFFI:       Immode       TCC 2: US Gold (CMX)       USD       Troy Ounce       Default       ✓       Foir value curve exists f         canameters       Forward Spreads       Interpolate       Align by Maturity ✓ Apply FX Forwards       Show RIC       Ecmals: Increase / Decrease       Supple:       USD/INR         filt       Month       -180.044       INH Aludid       Decrease       2:US Gold (CHX)       USD/O25       USD/INR         filt       Month       -180.044       INH Aludid       Decrease       2:US Gold (CHX)       USD/O25       USD/INR         filt       Month       -180.044       INH Aludid       Decrease       2:US Gold (CHX) <t< th=""><th>n 2016 xists for this R i.e.</th></t<>	n 2016 xists for this R i.e.
Buy/Sell       Ratio       RIC       Change       Source       Name       Native CCY       Native Units       Field       Use Fair Values         Contract #1: Sell       1.00       0#MAU:       #***       MCI       1: IN MCX Gold       INR       Tola       Default       V       No fair value curve exists f         Contract #2: Buy       1.00       0#GCFV:       #***       TCC       2: US Gold (CMX)       USD       Troy Ounce       Default       V       Pair value curve in use.         read Dividing Ratio       1.00         Pair value curve in use.         Pair value curve in use	
Image: Self Self Self Self Self Self Self Self	
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Conduct 2:1 Buy       0.00000000000000000000000000000000000	
Control (2) (cdy)       Color       No (cdy)       Color       Color <td></td>	
read Dividing Ratio       1.00         arameters         Forward Spreads Table       Forward Spreads Chart       Historical Chart         Decimals: Increase       Decimals: Increase       Decimals: Increase       Decimals: Increase         Spreads       INR/GRAMS       Decimals: Increase       Decimals: Increase       USD/INR         Number       Period       Value       Maturity       Price       Maturity       Price       Outrights         *       #1       Month       -180.44       #*       AUG6       30,991.00       I       III       DUL       IIII       Outrights         *       #2       Month       -180.24       #*       OEC6       30,822.00       I       IIIIII       AUG6       1,265.55       L       67,84000         *       #3       Month       -153.20       #       EFE7       31,478.00       C       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
Number         Period         Value         Maturity         Price         Maturity         Price         Outrights           #1         Month         -180.44         ##         AUG6         30,991.00         1         ##         JUN6         1,255.55         L         67,84000           #2         Month         -160.32         ##         OCT6         30,932.00         1         ##         JUN6         1,255.55         L         67,84000           #2         Month         -153.20         ##         DCC6         30,932.00         1         ##         JUL6         1,255.55         L         66,19250           #4         Month         -119.65         ##         PEGE         31,431.00         C         ##         OCT6         1,270.50         L         668,90000           #5         Month         -114.16         ##         APR7         31,673.00         C         ##         DCG6         1,270.50         L         668,90000           #4         Month         -143.95         ##         JUN7         31,925.00         C         ##         DCG6         1,270.50         L         70.20588           #4         Month         ##         ##	
ペイ       #1       Month       -180.44       語 ペイ       AUG6       30,091.00         語       JUN6       1,255.55       L       67.84000         ペイ       #2       Month       -160.32       図 ペイ       DCC6       30,332.00         語       JUL6       1,255.55       L       67.84000         ペイ       #3       Month       -155.32       B       ペ       DCC6       30,632.00         語       JUL6       1,255.55       L       67.84000         ペイ       #4       Month       -155.32       B       G       68.19250       L       68.19250         ペイ       #4       Month       -119.65       B       ペ       FEB       31,431.00       C       B       OCT6       1,270.50       L       68.19250         ペイ       #5       Month       -1143.55       B<       イ       FEB       31,678.00       C       B       DEC6       1,278.60       L       70.20588         ペイ       #7       Month       -143.95       B<       イ       PE       1,279.05       L       70.80502         ペイ       #7       Month       B       ペ       B       JUN7       1,281.60       L       70.86502	
ポイ       #2       Month       -160.32       語 ベ       OCT6       30,332.00       I 語       JUL6       1,265.80       L       67.84000         ポイ       #3       Month       -153.20       語 ベ       DEC6       30,632.00       I       語       AUG6       1,265.80       L       668.9000         ポイ       #4       Month       -119.65       第 ベ       APR7       31,431.00       C       E       OCT6       1,273.50       L       689.90000         ポイ       #5       Month       -119.65       第 ベ       APR7       31,431.00       C       E       DEC6       1,273.50       L       689.90000         ポイ       #6       Month       -143.95       E       31,678.00       C       E       DEC6       1,273.50       L       69.60927         ポイ       #6       Month       -143.95       E       イ       E       E       FEB7       1,279.05       L       70.20588         ポイ       #7       Month       E       #7       Month       E       3       JUL7       1,284.00       L       70.20588         ポイ       #8       Month       #8       JUL7       1,284.95       L <td< td=""><td></td></td<>	
ペイ     #3     Month     -153.20     糖晶 ~     DEC6     30,622.00     「     時間     AUG6     1,267.35     L     68,19250       ペイ     #4     Month     -119.65     時間 ~     FEB7     31,431.00     C     時間     OCT6     1,270.55     L     68,19250       ペイ     #5     Month     -134.16     能 ~     FEB7     31,431.00     C     時間     OCT6     1,270.55     L     68,19250       ペイ     #6     Month     -134.16     能 ~     APR7     31,925.00     C     18     DEC6     1,273.55     L     69,60927       ペイ     #6     Month     -143.95     計画 ~     JUN7     31,925.00     C     18     APR7     1,279.05     L     70,20588       ペイ     #7     Month     18     ~     100     1,283.160     L     70,20588       ペイ     #8     APR7     1,279.05     L     70,20580     L     70,205802       ペイ     #8     Month     18     ~     100     1,283.60     L     71,25305	
☆ #4 Month -119.65 聴 ☆ FEB7 31,4578.00 C 聴 OCT6 1,270.50 L 68,90000 #5 Month -134.16 聴 ☆ APR7 31,678.00 C 聴 DEC6 1,273.50 L 69,60927 ☆ #6 Month -143.95 聴 ✓ JJN7 31,925.00 C 聴 FEB7 1,276.40 L 70,20588 ☆ #7 Month 聴 ☆ Bill APR7 1,279.05 L 70,86302 ☆ #8 Month 聴 ☆ Bill JJN7 1,281.60 L 71,55100 ☆ #8 Month m W W FIE W JJN7 1,281.60 L 71,55100	
☆ #5 Month -134.10 器 ☆ APR7 31,578.00 C 器 DEC6 1,273.59 L 68.60927 ☆ #6 Month -143.95 器 ☆ JUN7 31,925.00 C 器 FES7 1,276.40 L 70.20588 ☆ #7 Month 器 ☆ JUN7 31,925.00 C 器 APR7 1,279.05 L 70.86302 ☆ #8 Month 器 ☆ 開露 JUN7 1,281.60 L 71.55100 ☆ #8 Month 器 ☆ 開露 AUK7 1,281.50 L 71.55100	
*** # Month 2014 *** 2015,5300 *** # 8 Month 2014 *** 2015 2010	
→ → → → → → → → → → → → → → → → → → →	
#11 Month     #2     #2     DEC7     1,288.25     L     73,55303	
#12 Month #2 FEB8 1,289.60 L 74.22419	
★ #13 Month #1 APR8 1,291.20 L 74.87334	
ーダ #14 Month 語 ディー 第5 JUN8 1,293.20 L 75.55551	
#15 Month 🔢 🚧 DEC8 1,299.65 L 75.55551	
🛫 #16 Month 🏭 🕶 🏭 JUN9 1,304.55 L 75.55551	

- 1. Specify the Samples that you wish to view the Spread on
- 2. Choose which contract to buy and sell
- 3. Hover over the "fx" function to view the formula used (Simple or Complex)



Part 6C: Agriculture Market



# THOMSON REUTERS

# **EIKON**[®] Eikon shortcuts: **Agriculture**

REAL TIME MONITORING	
COPM	Commodities Prices Monitor
LMEO	LME Overview
OPW	Option Watch
Q	Quote
QL	Quote List
QLI	Quote Line
SDB	Sidebar
TICK	Ticker

NEWS	
NEWS	News
TOPNEWS	Top News
OPECO	Organization of the Petroleum Exporting Countries
CONM	Commodities News Monitor

CHARTING	
SPDC	Commodities & Energy Spread Chart
FWDC	Forward Curve
FWCC	Forward Curve Chart
METO	Metals Outrights

AGRICULTUR	
AGRI	Agriculture Guide
ASPD	Agriculture Spreads
BARLEY	Agriculture – Barley Guide
BIODIESEL	Agriculture – Biodiesel Guide
BIOFUELS	Agriculture – Biofuels Guide
COCOA	Agriculture – Cocoa Guide
COFFEE	Agriculture – Coffee Guide
CORN	Agriculture – Corn/Maize Guide
ETHANOL	Agriculture – Ethanol Guide
FERT	Agriculture – Fertilizer Guide
FORESTRY	Agriculture – Forestry/Fibre Guide
GRAINS	Agriculture – Grains Guide
LIVESTOCK	Agriculture – Livestock/Dairy Guide
OILMEALFEED	Agriculture – Oilseeds/Meals/Feeds Guide
VEGOIL	Agriculture – Other VegOils/ Meals Guide
PALMOIL	Agriculture – Palm Oil Guide
RAPCAN	Agriculture – Rapeseed/Canola Guide
RUBBER	Agriculture – Rubber Guide
SOFTS	Agriculture – Softs Guide
SOY	Agriculture – Soybeans Guide
SUGAR	Agriculture – Sugar Guide
WHEAT	Agriculture – Wheat Guide

ANALYTICS AND CALCS	
ASPD	Agriculture Spreads
AVRG	Average Calculator
CALC	Eikon Calculators
COCM	Commodity Curve Monitor
COSP	Commodity Swaps Pricer
CSPD	Cross-Commodity Spreads
EWIN	Platts eWindow Market Data
MAP	Interactive Map
MSPD	Metals Spreads
POWPJM	Power – PJM
TANK	US Weekly Oil Stocks Estimates (API, EIA)
VOLS	Volatility Surface Calculator
MAPTRK	Interactive Map Asset Tracker
HURRICANE	Hurricane Tracker
CFTC	Commodity Futures Trading Commission
FRGHT	Shipping



#### Chapter 6C: Agriculture Market

SEARCHES	
AGRISRCH	Agriculture – Advanced Search
ANSWERS	Eikon Answers
ENESRCH	Energy – Advanced Search
METSRCH	Metal – Advanced Search
OILREF	Oil Refineries Advanced Search
PHYSICALSRCH	Commodities Physical Assets – Advanced Search
SRCH	Advanced Search
WEATHERSRC	Weather – Advanced Search

HELP	
FAQ	Frequently Asked Questions
HELP	Online Help


#### 1. Overview

Agricultural commodities are the first commodities to have been traded and remain the most important due to man's need for food. Agriculture futures are popular exchange-traded products where two parties take up short (agree to sell) and long (agree to buy) positions.

For example, a farmer would be the holder of a short wheat position (agreeing to sell) and the bread maker could be the holder of the long position (agreeing to buy)

Below are a list of common agricultural products which can be found in Eikon

Types of Agricultural Products	Examples
Grains	Corn
	Wheat
	Barley
Softs	Coffee
	Сосоа
	Sugar
Oilseeds/Meals/Feeds	Soybean
	Soybean Oil
	Soybean Meal
Biofuels	Ethanol
Livestock/Dairy	Cattle/Beef
	Hog/Pig
	Milk
Fertiliser	Ammonia
	Nitrogen
	Phosphate
	Potash
	Sulphur
	Fertiliser
Forestry/Fibre	Cotton
	Wool
	Lumber



#### 2. Product Exchange

Commodity exchanges are exchanges where numerous commodity derivatives are traded. Some exchanges trade in the open outcry style, similar to that of the LME, or electronically.

If you go long in the market, you are buying a contract and you expect the price to rise and hence you are considered "bullish", If you go short, you are selling a particular contract and are expecting the price to fall and thus you are considered "bearish". To prevent having to meet a contractual obligation, a buyer or seller must liquidate his futures contract and this is known as offsetting a futures position.

Some common agricultural exchanges are CME Group (CBOT, KCBT), Intercontinental Commodity Exchange (ICE), and Tokyo Commodity Exchange (TOCOM) etc.

For example, to obtain a list or quotes for the most liquid futures from CBOT, LIFFE, Minneapolis and ICE Futures Canada, one can,

- 1. Press F4 to open the quote app
- 2. Type <GRAINGRAIN> or <GRAINGRAIN2>

ъ.		18.2 12.0	GRAING	RAIN Quote	₹Q ∨	GRAINGR	AIN Q				£ 6	28-4	≡ _	
GRAIN	GRAI	N				Grains a	& Oilseeds	Com	posite Pa	age			11:44	
GBP :	1.479	9/00	EUR 1	.1345/50	JPY 104.60	/65	BF0-	- 48	.46/48	BF0-1M	50.41/43 B	F0-2M 51	.01/03	
KCBT	WHEAT	T ≤KW	VIEW1>	Bid As	k Vol	Sprd	CE	BOT C	ORN <cvi< td=""><td>EW1&gt;</td><td>Bid Ask</td><td>Vol</td><td>Sprd</td><td></td></cvi<>	EW1>	Bid Ask	Vol	Sprd	
JUL6		433		432 ¹ 4/432	1 ₂ 32	3 -17.25	J	UL6	390³4	- 2 ¹ 4	390 ¹ 2/390 ³ 4	9460	- 5 ¹ 2	
SEP6		450 ¹ 4	- 0 ³ 4	450/450	¹ 4 44	-25.25	SI	EP6	396	- 2 ¹ 4	396/396 ¹ 4	7606	- 5 ¹ 4	
DEC6		475 ¹ 2		475 ¹ 4/475	1 ₂ 17	-17.50	DI	EC6	401 ¹ 2	- 2 ¹ 2	401 ⁴ /401 ¹ 2	7799	-7 ¹ 2	
MAR7		493		491 ³ 4/492		3 -10.75	M.	AR7	409	- 1 ³ 4	408³₄/409	1995	- 3 ¹ 4	
MAY7				502 ¹ ₄ /503		-7.50	M.	AY7	412 ¹ 4	-2	412/412 ¹ 4	101	- 2 ¹ 2	
MGE W	HEAT	< MW	EVIEW1>	Bid As	k Vol	Sprd	CE	BOT W	HEAT <wv< td=""><td>IEW1&gt;</td><td>Bid Ask</td><td>Vol</td><td>rd</td><td></td></wv<>	IEW1>	Bid Ask	Vol	rd	
JUL6	+ -	525 ¹ 2	+014	525 ¹ 2/525	³ 4 43	<b>-10.50</b>	J	UL6	459 ¹ 4	+012	459/459 ¹ 4	1850	-13	
SEP6	<b>†</b>	536	+114	535 ¹ ₄ /536	73	2 -14.50	SI	EP6	472 ¹ 4		472 ¹ ₄ /472 ¹ ₂	2466	-20 ³ 4	
DEC6	<b>†</b> –	550 ¹ 2	+114	549 ³ 4/550	¹ 2 13	2 -12.00	DI	EC6	493		492 ³ 4/493 ¹ 4	512	-19 ¹ 2	
MAR7	<b>†</b> –	562 ¹ 2	+014	562 ¹ 2/563	¹ 2	2 -7.50	M.	AR7 1	513 ¹ 2	+1	512/512 ¹ 2	28		
MAY7				570/571	1 ₂	-11.00	M.	AY7			522 ¹ ₂ /523 ¹ ₄			
WCE C	ANOL/	A <0	#RS:>	Bid As	k Vol	Sprd	CE	BOT S	OYBEANS	<sview1></sview1>	Bid Ask	Vol	rd	
JUL6	48	0.00		479.30/480	.50 (	-10.50	1	UL6 1	1135	- 2 ¹ 2	1134 ³ ₄ /1135 ¹ ₄	4008	0 ³ 4	
N0V6	<b>↓</b> 49	0.50	-0.40	490.20/491	.40 1	-6.10	A	UG6 1	1134'4		1133 ³ ₄ /1134 ¹ ₂	3145	14 ¹ 4	
JAN7	+ 49	6.60	-0.70	496.30/497	.80 :	3 -4.80	SI	EP6 1	1119 ³ 4		1119 ⁴ /1120	418	9	
MAR7	50	1.40	-0.10	500.20/502	.00 :	3	N	0V6	1110 ³ 4	-6	1110 ¹ 2/1111	6658	2³4	
MAY7				503.30/505	.10		J	AN7 -	1107 ⁴	-7	1107 ¹ 2/1108 ¹ 4	688	38 ¹ 2	
EUR M	.WHE/	AT <	BL2VIEW	l> Bid As	k Vol	Sprd	CE	BT SC	YBEAN OI	L <bovie< td=""><td>W1&gt;Bid Ask</td><td>Vol</td><td>rd</td><td></td></bovie<>	W1>Bid Ask	Vol	rd	
SEP6							1	UL6	31.42	-0.13	31.41/31.43	1447	-0.14	
DEC6							A	UG6 -	31.55	-0.14	31.55/31.57	396	-0.14	
MAR7							SI	EP6 -	31.70	-0.14	31.69/31.71	132	-0.12	
MAY7							0	CT6	31.87	-0.09	31.80/31.82	131	-0.28	
SEP7				/			DI	EC6	32.09	-0.15	32.08/32.09	3871	-0.17	
E LON	EXT I	RAPES	EED<0#C	OM:>Bid As	k Vol	rd	(	r so	YBEAN ME	AL <smvie< td=""><td>W1&gt;Bid Ask</td><td>Vol</td><td>rd</td><td></td></smvie<>	W1>Bid Ask	Vol	rd	
AUG6							1	UL6 -	390.2	-0.8	390.1/390.4	643	-0.7	
N0V6				/			A	UG6	390.9	-1.0	390.7/391.0	670	0.5	
FEB7				/			SI	EP6	390.2	-1.6	390.2/390.4	527	1.7	
MAY7							0	CT6	388.8		388.5/388.8	299	-0.2	
AUG7							DI	EC6	388.9	-2.1	388.7/388.9	1468	3.6	

When looking at the above prices, one question may come to mind. Why are the prices of the wheat futures traded on different exchanges different in price?

For wheat futures, those traded on CBOT are soft red winter wheat used for biscuits, muffins, cake and cake flour. Those traded on KCBT are hard red winter wheat which is used for bread. Trading in KCBT is less liquid than CBOT. Lastly, those traded on Minneapolis Grain Exchange are hard red spring wheat used for bread and hard baked goods.

Hence, different exchanges may trade different types of product, and thus the prices may vary as a result.



#### 3. Agriculture Fundamentals Database

The Agriculture Fundamentals Database displays reports that show the supply and demand factors affecting the agriculture market. Supply and demand fundamentals correlate directly to the majority market price movements. The Agriculture Fundamental Database provides fundamental data on global agricultural commodity markets supplied by the United States Department of Agriculture (USDA) and retrieved from the World Agriculture Supply and Demand Estimates reports (WASDE).

You can also view crop production data supplied by the National Agricultural Statistics Service (NASS), the Canadian Grain Commission, and U.S. oilseed statistics provided by the National Oilseed Processors Association (NOPA).

With Agriculture Fundamentals Database, you can view:

- global and US supply and usage
- US quarterly product production and prices
- Chinese import and export totals
- commercial stocks of Canadian grain etc.

To arrive at the page. You can either,

1. Type "Agriculture Fundamentals Database" in the Eikon Toolbar OR

2. Asset Classes>Commodities>Agriculture. Proceed to individual types of agriculture products and click "Fundamentals"





#### 4. Research and Forecast

#### Lanworth

Lanworth crop reports are a bi-weekly fundamental report that allows workflow integration with other data available in Eikon such as real-time, historical, Agriculture Fundamentals Database and shipping content. It provides early season estimates of commodity crop production worldwide. Lanworth methodology includes:

Models - based on farming practices, agronomic fundamentals and forward weather scenarios generating high quality first estimates of planting and production.

Satellite imagery - maps plantings and monitors crop development and production potential over whole countries and regions

Field investigation - ensures the quality of model outputs and image analyses. Field teams are dispatched globally to validate forecasts.

There are two ways to obtain Lanworth research.

1. In the Eikon Toolbar, search <Lanworth> and click on the report needed.



2. Asset Classes> Commodities> Agriculture> Summary> Analysis





#### NOPA

Thomson Reuters is the exclusive distributor of US monthly (every 15th of the month) soybean crush data from the National Oilseed Processors Association (NOPA). NOPA data is a key indicator of usage and its potential impacts on the global marketplace. NOPA provides total crushings, soya meal and soya bean oil figures for all US processing states.

The NOPA Data could be assessed by going through the following steps.

Asset Classes> Commodities> Agriculture> Oilseeds/Meals/Feeds> Fundamentals



On this page, data can be migrated to Excel. Also, NOPA Crush statistics chart is available and can be edited to display monthly/annual data, date range and category. Real time news is also available.



#### 5. Weather Dashboard

The production and transport of agricultural products is heavily dependent on weather conditions. Weather extremes can have a severe impact on crop yields and in turn the supply, demand and pricing of these commodities could be heavily impacted.

To access the weather dashboard, in the Eikon Toolbar, type <Agriculture Weather>.



On this page, you could analyse the weather of different regions around the world as well as to check the patterns of different oscillations (e.g. El Nino, Arctic Oscillation) and its impact on crops.



Part 6D: Shipping



#### 1. Overview

Shipping is a sector which is of great importance to all commodity traders. For physical commodities traders, the price of shipping will have a large impact on their potential profit and got trading institutions; shipping is an effective way of analyzing supply and demand.

Tracking shipping prices can be done via looking at actual chartered prices or by following shipping indices. A shipping index is similar to an equity index as it provides a view of the overall trend and a historical comparison.

The Shipping Homepage is shown below. Search in the Eikon Toolbar for <FRGHT>



The benchmark for shipping indexes is the **Baltic Dry Index**. The Baltic exchange provides both shipping indices and fixture prices. Shipping prices are also provided by Thomson Reuters journalists, and are organized according to commodity, type of vessel and route.

Below is the quote page for the Baltic Dry Index, which can be obtained by pressing F4 to open the quote app and typing **<.BADI>** 

S	+ +	Duote	≠Q ∨	BADI	Q		Ð	ዸ目・€	≡ _	×
. BAD	I	BALTI	C EXCH DRY		/BFE (	JSD		22JUN16	19:59	
Va † 58	alue 85	Ne +5	t.Chng	Pct.Chng +0.86 %	Volum	ie	Turnover		News	
Move 1	25	Cls Open High Low Life.H Life.L	: 580 : 585 : 585 : 585 igh: 11793 ow : 290	21JUN16 20MAY08 10FEB16	Adj.Cls Cls.Pr.Yr Yr.High Yr.Low Pr.Yr.High Pr.Yr.Low	: 478 :715 :290 : 1222 : 471	27APR16 10FEB16	Net Index TradeGP		
Pr.Y Yr.P	r.Perf erf	:-38.87 :21.34	Constituen Weighting	ts : Chain:		Futures ATM Opt		PE ****		



#### 2. Shipping Fundamental Database

Within the Shipping Homepage <FRGHT>, there are numerous fundamentals data available such as

1. Fixture Data

This is a comprehensive list of vessels information, which includes, who is chartering the vessel, type of vessel, the commodity being transported, where it is and where it is going and the cost for chartering. This data is available on Eikon for Dry/Bulk and Tanker Vessels.

Such information allows customers to identify demand trends and cargo flows to gain a deeper understanding of the supply chain dynamics and explore trading. This can also be used to monitor competitor activity in the market.

#### 2. Fleet Analysis

This data examines the global fleet capacity with forecasts by integrating vessel deliveries, orderbook for new vessels and expected demolitions

#### 3. Port Activity

This is data regarding vessel queues, line-ups or congestions which can have a direct impact on supply.

Simply click on any tab for more fundamental data available.





#### 3. Research and Forecast

#### TRADEFLOWS

Tradeflows is a single standard service that will assess the movement of commodities - oil, LNG, coal, iron ore, agricultural products across the globe.

1. Agriculture Flows

This shows you historical cargo level detail of waterborne agriculture products imports and exports. With exclusive research and forecasts from Thomson Reuters agriculture analysts, North American Agriculture Flows will allow you to quickly understand the market and make informed and confident decisions.

Two modules are now available:

- US Bills of lading provides US historical data from US customs.

- Global Port Inspections provides coverage on 31 countries, excluding the US, both historical and future-looking

2. Metal Flows

This shows you cargo-level detail of waterborne iron ore imports and exports.

3. Energy Flows

This shows you cargo-level detail of waterborne crude oil, oil products, LNG and coal imports and exports.

To access the page, type <TRADEFLOWS> in the Eikon Toolbar.





# Part 7: Equities



# THOMSON REUTERS

# **EIKON**[®] Eikon shortcuts: **Equities**

REAL TIME N	IONITORING
BLOT	Blended Order Tracker
BOB	Blended Order Book
BRKS	Broker Statistics
BTAS	Blended Time & Sales
IMO	Index Movers
MON	Monitor
Q	Quote
QL	Quote List
QLI	Quote Line
SDB	Sidebar
SI	My Synthetic Instruments
SNAP	Snapshot
TAS	Time & Sales
TICK	Ticker

WALYTICS 8	CALCS
WRG	Average Calculator
CALC	Eikon Calculators
ONV	Convertible Bond
ORR	Correlation Matrix
ARB	DR Arbitrage
IRA	Historical Return Analysis
FFV	Index Futures Fair Value
PR	Option Pricer
DSC	Option Strategy
PAIRS	Pairs Calculator
REGR	Regression Analysis
ARB	Stock Arbitrage
SIGNAL	Signal
RET	Total Return

CHARTING	
CBOOK	Datastream Chartbook
CHT	Chart app
DSCHART	Datastream Chart Studio
DSLIB	Datastream – My Library
DSNEWS	Datastream News In Charts
ECOC	Economic Indicator Chart
FESC	Fundamentals Estimates Chart
REBC	Rebasing Chart
RRG	Relative Rotation Graph
TEAC	Technical Analysis Chart
VOLC	Volatility Chart
XNET	Datastream Infohase

MARKETS	
ALPHA	Alpha Now
BIGTR	TR Indices
BIGV	Volatility Indices
EE	Economic Events
HOL	World Exchange Holidays
HOME	Home page
INDUS	Industry
INFOV	World Index Futures -
	Overvlew
INOV	World Indices - Overview
MACROX	Macro Explorer
STOV	Stocks Guide

COMPAN	Y - CONTEXTUAL NAVIGATION		
Type the co	ompany name and the selected tool – e	.g. "IBM OV	-
OV	Overview	GUID	Guidance Summary
AQ	All Quotes	HS	Historical Surprise
ARM	Analyst Revision Model	IC	Index Competitors
BAL	Balance Sheet	IIS	Interactive Income Statement
BUS	Business Info.	INC	Income Statement
CACAL	Corporate Actions Calendar	INSIDER	Insider / Stakeholder
CAPD	Cpital Change Event Detail	IR	Issuer Ratings
CAPO	Capital Change Overview	N	Intrinsic Valuation
CC	Stock Competitors	MYN	My News
CDSAQ	CDS All Quotes	OFF	Officers & Directors Overview
CDSCA	CDS Calculator	OFFD	Officers & Directors Detail
CDSCHT	CDS Charts	OFFP	People Connections
CDSOV	CDS Overview	OFFREL	Corporate Relationships
CDV	Company Deals	OPM	Operating Metrics
CF	Cash Flow	PEERS	Peers
CHTV	Company Chart View	PMO	Price Momentum Model
CN	Company News	PP	Price Performance
CRS	Credit Risk - Structural Model (BETA)	PTB	Price Target Builder
CRT	Credit Risk - Text Mining Model (BETA)	QH	Quote History
CUST	Major Customers	RAT	Ratios – Key Metrics
DIVD	Dividend Payment Detail	RATO	Ratios – Overview
DIVO	Dividend Overview	RATPVR	Ratios – Profit/Value/Risk
DS	Debt Structure	REC	Recommendations & Target Price
EF	All Futures	RES	Company Research
EMTO	Most Traded Options	RV	Relative Valuation
EOP	Options	SC	Sector Competitors
EQ	Earnings Quality	SECN	Sector News
EST	Statement View	SEG	Segments
ESTD	Detailed Estimates	SH	Smart Holdings Model
EV	Events	SI	Short Interest
EW	Warrant Overview	TASV	Time and Sales
EXCNV	Exchangeables and CNVs	TOPA	Top Analysts
FIL	Filings	WWAP	VWAP
FNOWN	Fund Ownership Summary		





EQUITY INDE NAVIGATION Note: Type the tool – e.g. "TBM	EX - CONTEXTUAL Index name and the selected
CA	Constituent Analysis
CHTV	Index Chart View
EF	All Futures
EOP	Options
EV	Events
EW	Warrant Overview
FIL	Filings
IN	Index News
U	Leavers and Joiners
OV	Overview
PP	Index Price Performance
QH	Quote History
RES	Research
RINB	Reuters Investors Briefs

FUNDS - Type the fu selected to	CONTEXTUAL NAVIGATION nd name or identifier and the ol – e.g. "QQQ AQ"
AQ	All Quotes
CHTIP	Indexed Performance Chart
CHTNA	Total Net Assets (TNA) History
	Chart
CHTPD	Price & Dividend History Chart
CHTPG	Percentage Growth Chart
CHTRE	10,000 Reinvested Chart
CHTRP	Rolling Performance Chart
CHTV	Funds Chart
FHOLD	Fund Full Holdings
HOLD	Fund Holdings
OV	Overview
QA	Quantitative Analysis

SEARCHES	
ADRSRCH	ADRs – Advanced Search
ANSWERS	Elkon Answers
ECONSRCH	Economic Indicators – Advanced Search
EQSRCH	Companies – Advanced Search
ETFSRCH	ETFs – Advanced Search
FUNDSRCH	Funds – Advanced Search
FUTSRCH	Futures – Advanced Search
MASRCH	Mergers and Acquisitions – Advanced Search
OPTSRCH	Options – Advanced Search
SCREENER	Equity Screener
SRCH	Advanced Search
WARRSRCH	Warrants - Advanced Search
RES	Research

HELP	
FAQ	Frequently Asked Questions
HELP	Online Help



# THOMSON REUTERS

# **EIKON** COMMONLY USED CODES: **INDICES**

#### INDICES **CBOE Volatility Index** .VIX Dow Jones Industrial Average .DJI .DJA Dow Jones Composite Dow Jones Transports .DJT Dow Jones Utilites .DJU Dow Jones Total Return DJCTR. S&P 100 .OEX S&P 400 Midcap Equal Weighted .MIDEWF Index S&P 500 SPX. S&P 600 Small Cap SPCY. S&P 500 CME Value Index .IVX S&P 500 CME Growth Index .IGX S&P Total Return .SPXT S&P 600 Consumer Discretionary .SPSMCD Sector S&P 500 Consumer Staples Sector .SPLRCS S&P 500 E-Mini Future ESc1 S&P 500 Energy Sector .SPNY S&P 500 Financial Sector .SPSY

INDICES (continued)	
S&P 500 Future	SPc1
S&P 500 Health Care Sector	.SPXHC
S&P 500 Industrials Sector	.SPLRCI
S&P 500 Information Technology Sector	.SPLRCT
S&P 500 Materials Sector	.SPLRCM
S&P 500 Telecomm Services Sector	.SPLRCL
S&P 500 Utilities Sector	.SPLRCU
Morgan Stanley Consumer Index	.CMR
Morgan Stanley Cyclical Index	.CYC
US60 Index	.US60
Nasdaq Composite	.IXIC
Nasdaq 100	.NDX
NYSE Composite	.NYA
Thomson Reuters Global Total Return	.TRXFLDGLTU
Russell Top 50	.RU50
Russell 1000	.RUI
Russell 2000	.RUT
Russell 3000	.RUA
Willshire 5000 Index	.W5000
US Dollar	.DXY

INTERNATIONAL INDICES		
FTSE 100	Great Britain	.FTSE
DAX 30	Germany	.GDAXI
CAC 40 INDEX	France	.FCHI
STOXX 50	Europe	.STOXX50
BOVESPA	Brazil	.BVSP
MXSE IPC	Mexico	.MXX
S&P TSX 60	Canada	.SPTSE
NIKKEI 225	Japan	.N225
HANG SENG INDEX	Hong Kong	.HSI
AUSTRALIA ALL ORDS	Australia	JAORD
EURO STOCKS 50	Europe	.STOXX50E
AEX Index	Netherlands	JAEX
RTS Index	Russia	.IRTS
Kospi	South Korea	.KS11
Straits Times Index	Singapore	.FTSTI



THOMSON REUTERS

### 1. Equity Data Pages

#### Equity Homepage <EQG>

The first page that you should utilize to obtain information about equities is the Equity Homepage. On this page, you can have a brief overview of the different applications applicable to equities as well as a key list of equity indexes and top news.

To arrive at the following page,

#### Home > Asset Classes > Equities OR

#### In the Eikon Toolbar, search <EQG>

$\leftarrow \rightarrow$		Q 🧧	Equities   Overv	ew										G	≡ _ æ ×
	This application i	s still in de	velopment.											🗭 S	end feedback
EQ	UITIES OVI	ERVIE	W •											o	VERVIEW EQG
Ove	erview News M	larket Data	and Tools E	conomic Events	Research										
SEAR	сн			FEATURED C	ONTENT				тор	INDICES >					đ
Indice	es	Stocks		What's New	in Equities				.N2	25 15,187.71					Price
Futur	es	Options		Market Shar	e Reporter (MSR)				1						19.00K
Warra	ants	ETFs		Relative Rot	ation Graph (RRG	i)			5						18.50K
ADRs		Equity S	creener	Aggregates	Matrix								~		17.50K
TOP N	iews >									YNY		$\sim$	$\mathcal{A}$		17.00K
	NIGAN	CHINE RETUR	SE INSURERS INS	RUN "TITAN	C" RISKS FOR	TITAN	NIC				m	· V	VV		16.50К М 16.00К
Y	surante Banking Investment	HONG F insurers could pu econom	CONG, June 26 ( has been partly unch multi-billion y triggers heavy	Reuters) - Years fuelled by a spi -dollar holes in debt defaults.	of breakneck gr urge on risky inve their balance she	owth fo estmen eets if th	or China's t product ne slowin	top Is that g		30 Jan-29		Mar-31		May-31	15.50K 15.19K 15.00K
LINE, THE BIGGEST TECH IPO OF THE YEAR, STRUGGLES TO SHOW ITS GROWTH PLAN CAN WORK Selected Indices (1) V Solution Selected In						M 1Y 5Y									
TOKY	O, June 26 (Reuters	) - In delay	ing its IPO by two	o years, Japane	se messaging ap	op comp	bany Line	Corp				Net Chng			YTD % Chng
billior	nt time to correct we is of dollars on the ta	ible as its v	aluation shrivell	ed.	business pian, bu	olster st	tanny - a	na ien	Am	ericas >					
AUS	TRALIA'S ASCIAN	IO RESO	LVES DISPUTE	GNAWING	AT \$6.8 BLN B	UYOU	л		-	S&P 500 INDEX	2,037.41				-0.32%
SYDN	IEY, June 27 (Reuter	s) - Austral	lian freight giant	Asciano Ltd on	Monday said it h	as resol	lved a lee	gal	•	DJ INDU AVER	17,400.75				-0.14%
dispu Cana	te with a trucking su da's Brookfield Asse	bsidiary th t Managen	at had threatene hent Inc.	d to delay a A\$	9.1 billion (\$6.8 b	billion) D	ouyout le	d by	•	NASDAQ 100	4,285.70				-6.70%
CHIN	A'S BAOSTEEL, V	NUHAN	STEEL ANNOU	INCE PLAN T	O RESTRUCT	URE			•	S&P/TSX COM	13,891.88				6.78%
BEIJI	NG, June 26 (Reuters	s) - China's	Baosteel Group	and Wuhan Iro	and Steel Grou	p, two c	of the cou	untry's	•	BVSP BOVESP	50,105.26			3.21%	15.41%
large: filings	st steelmakers, are to s on Sunday.	ogether pla	anning to restruc	ture, their listed	units said in sep	arate st	tock exch	nange	•	MXSE IPC GRA	44,885.82				4.44%
ECON									Euro	ope >					
	Event Name				Actual					STXE 600 PR	321.98				-11.98%
FI	Consumer Conf	14.00	lun				12 50	- 61	-	FTSE 100 INDEX	6,138.69				
_FI	Export Prices YY*	14:00	May				-5.50%	-61	-	XETRA DAX PF	9,557.16				
FI	Import Prices YY*	14:00	May				-8.3%	5	-	CAC 40 INDEX	4,106.73				
FI	Industry Confid	14:00	Jun				-11.00	5	-	FTSE MIB	15,723.81				
FI	PPLYY*	14:00	May				-4.70%	€ī	-	SMIPR	7,747.18				
TOP S	ECTOR INDICES >								-	AEX-Index	424.20				
Name			t Not Ch	na % Ct	ng MTD%(	Chna		6 Chna	•	IBEX 35 INDEX	7,787.70				
	2 Global Energy	173 1	8 -0					7 76%	•	OMXS30 INDEX	1,360.73	+6.13	0.45%		-5.95%
	Colobal Lifelgy	173.1	-0.					1.70%	Asia	•					



#### **Equity News**

From the Homepage, you can easily navigate to the News and Research tab to read up on the latest news of the market of your choice.

Home> News and Research> Top News



Alternatively, you could go to the Stocks Buzz News Service to have short headlines of the main happenings.

In the Eikon Toolbar, search <Stocks Buzz>

් 🦲 Ne	ws: Stock	s Buzz News Service	AND (Chinese (Simplified) OR English) $\equiv$ _ $\Box$ ×
▼ ‡ ←	→ <b>Q</b>	Stocks Buzz Ne	× 🔳 🖊
Time	Source	RICs	Headline
10:36:19 AM		FLT.AX	BUZZ-Australia's Flight Centre hits more than 3-yr low
10:29:46 AM		9831.T	BUZZ-Japan's Yamada Denki soars after Goldman upgrades rating
10:26:42 AM			BUZZ-China's steelmakers jump on Baosteel-Wuhan Steel restructuring report
09:51:43 AM		RMD.AX QBE.AX	BUZZ-ASX 200 slipping below 4800 "not implausible" - Morgan Stanley
09:27:34 AM		HGGH.L HGG.AX	BUZZ-UK-exposed Australian stocks open lower in Brexit aftershocks
08:39:43 AM		TTS.AX	BUZZ-Australia's Tatts slips to more than 2-mth low, sells stake in UK slots business
08:30:57 AM		MQG.AX	BUZZ-Australia's Macquarie hits 1-1/2-mth low on Brexit uncertainty
07:28:09 AM		PRY.AX AGL.AX	BUZZ-Credit Suisse lowers ASX 200 year-end target on Brexit uncertainty
25 June 2016	5		
05:53:12 AM		SKUL.O	BUZZ-Skullcandy soars on receiving two buyout offers in a day
04:26:10 AM		NEM.N .XAU	BUZZ-U.S. stocks weekly: Brexit, stage left
02:43:04 AM		ALXN.O	BUZZ-Alexion at 3-yr low on Brexit, Piper Jaffray sees chance to buy
02:11:53 AM		XLF.P .BKX	BUZZ-European ADRs sink, on track for biggest drop since '09
01:33:23 AM		WEN.O V.N	BUZZ-U.S. STOCKS ON THE MOVE-Brexit effect: Banks, energy down, miners up
01:00:11 AM		FCAU.N TSLA.O	BUZZ-U.S. carmakers: Skid after Brexit vote



# 2. Equity Data Search Tools

#### Advanced Search <EQSRCH>

Using the advanced search tool on Eikon for equities, one can screen out different equity instruments available, according to the different requirements they have stipulated in the filters. After filtering out the different equities, one can sort it (e.g. high to low for dividend yield) for easier search.

In the Eikon Toolbar, type <EQSRCH> and hit enter.

Double click on the name of the issuer to be directed to the company view page.

ළ 🔶 🗘 🗧 Equities Search					C ≡ _ □ ×
Add / Remove Columns Create List Primary Qu	otes Only 📃 Prir	mary Issues Only 🛛 🗹 A	ctive only	Hide Applied Filter	rs Clear All Filters 🏚
Equities (57,192)					
Name (or Code)	RIC	Currency	Market Capitalisation (USD)	Dividend Yield	
		US Dollar 🗙	Greater Tha 🗙		
		Singapore Do 🗙			
٩	Q	T×	T×	T	
Apple Inc	AAPL.O	US Dollar	511,591,495,000	2.44	
Microsoft Corp	MSFT.O	US Dollar	391,687,063,434	2.89	
Amazon.com Inc	AMZN.O	US Dollar	329,788,870,921		
Facebook Inc	🖶 FB.O	US Dollar	320,583,042,793		
Tesla Motors Inc	JE TSLA.O	US Dollar	28,176,975,412		
Alphabet Inc	GOOGL.O	US Dollar	467,000,117,695		
General Electric Co	🗗 GE	US Dollar	274,214,491,740	3.09	
Bank of America Corp	BAC	US Dollar	133,534,903,489	1.54	
Priceline Group Inc	PCLN.O	US Dollar	61,162,666,905		

#### Advanced Search Companies and Issuers <ORGSRCH>

This application is useful as it allows you to search for un-listed companies (i.e. private companies). From here, you can click on the different type of instruments available from the company/issuer.

In the Eikon Toolbar, search **<ORGSRCH>** and hit enter.

dd / Remove Columns Create L	list Selec	t Ratings					Show Appli	ed Filters Clear All Filters
Companies/Issuers (42,530)								
Company Name		Country of Domicile		TRBC Sector			RIC	Instruments Available
	Q		T		T	×	Q	
Wells Fargo & Co		United States		Banks (NEC)			Je WFC	Equities   Bonds   CDS   Warra
Industrial and Commercial Bank of	China Ltd	China (Mainland)		Banks (NEC)			a 601398.SS	Equities   Bonds   CDS   Warran Ownership
JPMorgan Chase & Co		United States		Banks (NEC)			a JPM	Equities   Bonds   CDS   Warran Ownership
China Construction Bank Corp		China (Mainland)		Banks (NEC)			🖶 601939.SS	Equities   Bonds   CDS   Warran Loans   Ownership
Agricultural Bank of China Ltd		China (Mainland)		Commercial Banks			₽ 601288.SS	Equities   Bonds   CDS   Warran Ownership
Bank of America Corp		United States		Banks (NEC)			Jan BAC	Equities   Bonds   CDS   Warra Ownership
Bank of China Ltd		China (Mainland)		Banks (NEC)			₽ 601988.SS	Equities   Bonds   CDS   Warran Loans   Ownership
HSBC Holdings PLC		United Kingdom		Commercial Banks			J HSBAL	Equities   Bonds   CDS   Warran Ownership
Citigroup Inc		United States		Banks (NEC)			₽ C	Equities   Bonds   CDS   Warran



#### Screener

Another application which the user could utilize to search for equities is the screener app. Here, you can specify different fields to search for equities and export your results to Excel. In the Eikon Toolbar, search **<SCREENER>** and hit enter.

් ← → 🕃 SCREENER				(	? ≡ _ □ ×
SCREEN ?	I ← REPORT			💬 Tell us wha	at you think 🗮 🐮
Unsaved Screen 🗸 🗒 🔻	Current Screen Tem	plate 🗸 🗒 🔻 Add Colum	in 🗄	Group Add Ra	nk
Currency: SGD 🗸				🌣  😿 🖝	• 🕒 • 🖴 •
UNIVERSE Public Companies      V 66.7K	Identifier	Company Name	Country of Headquarters	Company Market	P/E (Daily Time Div Series Ratio) Pe
Include: Active, Public, Primary Edit			neequercio	(SGD)	
Include:		China Merchants Holdings Pacific Ltd	Singapore	1,830,414,582.00	13.39
Indices, Lists, Portfolios, Screens	KPLM.SI	Keppel Corporation Ltd	Singapore	9,742,315,012.43	7.04
Exclude: Edit		M1 Ltd	Singapore	2,416,594,846.14	13.68
▶ QUICK FILTERS		Silverlake Axis Ltd	Singapore	1,322,365,954.24	9.30
		CapitaLand Commercial Trust	Singapore	4,170,054,503.16	12.72
Add Hiter := Counts		Suntec Real Estate Investment Trust	Singapore	4,234,047,550.78	12.76
Country of Headquarters		Ascott Residence Trust	Singapore	1,826,025,017.12	10.75
Singapore		CapitaLand Retail China Trust	Singapore	1,258,326,609.89	10.63
AND Company Market Cap		Mapletree Logistics Trust	Singapore	2,444,687,171.04	12.65
Greater Than or Equal (>=)		Mapletree Industrial Trust	Singapore	2,968,763,068.83	10.62
1,000,000,000.00 SGD		Hutchison Port Holdings Trust	Singapore	5,004,287,981.86	14.26
AND P/E (Daily Time Series Ratio)		OUE Hospitality Trust	Singapore	1,208,163,639.08	12.33
Less Than or Equal (<=)		Mapletree Greater China Commercial	Singapore	2,718,107,174.62	6.22
AND		Frasers Centrepoint Ltd	Singapore	4,486,449,390.96	7.43
Dividend Yield, Percent, LFY           Greater Than or Equal (>=)         14           5.0 %         14					

As you can see in the leftmost column, you can specify the country of headquarters, P/E, Dividend etc. For commonly used filters, one can utilize the "Quick Filters" function. Alternatively, type in the necessary filter in the search box.

Press the button in green at the top right hand corner to export the table to Excel.

#### Difference between Advanced Search and SCREENER:

Using the screener, one is able to

- 1. Filter more fields (such as IBES, Starmine, and Technical Analysis etc)
- 2. Set your own universe (portfolio) of stocks that you wish to look into
- 3. You can add columns to display the result with further data
- 4. Data can be displayed in a scatter plot format
- 5. The results can be exported to Excel.

These are functions not available with the EQSRCH and ORGSRCH applications.



#### **Eikon Answers**

Using Eikon Answers, one can conduct a natural language search which can provide direct answers to your questions pertaining to equity and equity indices and its respective Technical and Fundamental ratios.

E.g. Searching for "Apple vs. Microsoft vs. Google Stock Price 2012 to 2015, EPS, Dividend" in the Eikon Toolbar would generate the following page with the corresponding visual charts.

<b>←</b> →	Q (	Answers for apple vs mici	rosoft vs google stock price	2012 to 2015, eps, divid	end	୯ ≡ _ ⊏
EIKON ANSWE	RS				Feedback	16 IP P
Basic Norr	nalized EPS 🛙 fo	or Apple Inc, Microsof	t Corp, Alphabet Inc f	rom 2012 to 2015	Show Chart Data	xport to Excel
	Company	Market Measure	End	Start	Change	
AAPL.O	Apple Inc	Basic Normalized EPS	\$9.28 🖬	\$6.38 🖬	\$2.90 USD, 26-Se	ep-2015, 2015
MSFT.O	Microsoft Corp	Basic Normalized EPS	\$2.31 <b>E</b>	\$2.58 <b>E</b>	<b>\$-0.27</b> USD, 30-Ju	un-2015, 2015
GOOGL.O	Alphabet Inc	Basic Normalized EPS	\$23.12 🖬	\$17.42 <b>E</b>	\$5.69 USD, 31-De	ec-2015, 2015
AAPL.0	MSFT.0 GOOGL.0					
						0
	X: 2012 GOOGL.0	D: 17.42				20 LL 15
i.	2012	2013		2014	2015	
DPS - Com to 2015	mon Stock Prin	nary Issue 🛚 for Apple	Inc, Microsoft Corp, J	Alphabet Inc from 2	012 Show Chart Data Ex	xport to Excel
	Company	Market Measure	End	Start	Change	
AAPL.O	Apple Inc	DPS - Common Stock Primary Issue	\$1.98 🖻	\$0.38 🖬	\$1.60 USD, 26-Se	ep-2015, 2015
MSFT.O	Microsoft Corp	DPS - Common Stock Primary Issue	\$1.24 🖻	\$0.80 🗉	<b>\$0</b> .44 USD, 30-Ju	un-2015, 2015
GOOGL.O	Alphabet Inc	DPS - Common Stock Primary Issue	\$0.00 E	\$0.00 🖬	\$0.00 USD, 31-De	ec-2015, 2015
						g

After scrolling down past the results, you would see the following option bar.

Related Answers: Apple Inc PE Ratio | Alphabet Inc PE Ratio | Apple Inc Market Cap | Apple Inc Gross Dividends - Common Stock More Information: Apple Inc Overview | Apple Inc Income Statement Overview | Apple Inc Estimates Overview | Alphabet Inc Cverview | Alphabet Inc Income Statement Overview | Alphabet Inc Estimates Overview | Microsoft Corp Overview | Microsoft Corp Income Statement Overview | Microsoft Corp Estimates Overview | Alphabet Inc Estimates Overview | Microsoft Corp Overview | Microsoft Corp Income Statement Overview | Microsoft Corp Estimates

Using these links, the Answer Application provides you with links to information or searches that it deems would aid you, thus creating an easy and quick way for you to search for correlated information without having to search for it again.

Further down the page are direct links to the company overview, futures and equity products available, as well as top news from the past day.



#### Equity Offering Apps <IPO>

#### **IPO Process**

In order to carry out an IPO, the following steps must be taken by a company.

1. Pitch: bankers from many firms will pitch themselves to become book runner roes

2. Kick-off meeting: meeting for everyone (company management, auditors, accountants, underwriting banks, lawyers etc) involved in the IPO to get together

- 3. The S-1 filing (For US only): SEC filing used by companies to register their securities with SEC
- 4. Pre-selling the offering: a pre-IPO analyst meeting
- 5. Roadshow: meet with investors and market the company for 1-2 weeks
- 6. Pricing meeting: decide on the final price of the deal based on the orders received
- 7. Allocation: the syndicate of banks will allocate shares to investors
- 8. Trading: the stock starts trading and the general public can now buy and sell shares.

#### **EIKON Application**

On Eikon, there is an app which would list all IPOs, and here, all IPOs two weeks forwards and historical IPOs can all be accessed.

On this page, you could specify the expected date of IPO, including the exchange and country that you are interested in. Specific sectors can also be viewed.

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Search for IPO's by Expected Date 🗸 27-Jun-2016													
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		T				All	<b>T</b>			Nasdaq, Ne 🔻	All	T	All
Ē	27-Jun-2016		Gemphire Therapeutics Inc Q			IPO	45M	11/13	US	Nasdaq	United States		Pharmaceuticals Medical Research
	27-Jun-2016		TACTILE SYSTEMS TECHNOLOGY INC <b>Q</b>			IPO	60M	14/16	US	Nasdaq	United States		Healthcare Servic
	28-Jun-2016					Follow-On	24.559M	0.21	SG	Singapore	Singapore		Industrial Service
Ē	29-Jun-2016		Syros Pharmaceuticals Inc <b>Q</b>			IPO	64.5M	14/16	US	Nasdaq	United States		Pharmaceuticals Medical Research
Ē	30-Jun-2016					Follow-On	200M		US	New York	Bermuda		Transportation



#### Equity Speedguides

Within the Quote app, there are speedguides which provide a menu based approach to searching for data. Here, main headings would allow you to navigate to other pages which could lead to further searches.

The speedguide for equity could be accessed through the following steps.

- 1. Press F4 to open the quote application
- 2. Search **<EQUITY>** and the following page will appear.

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On this page, you could be linked to the different guides related to equity instruments such as the equity instruments of G20, OECD and Emerging markets.

Occasionally, you may be faced with having to scroll through different pages as the country you are searching for <XXXX/1> to <XXXX.2>



# 3. Charting for Equities

#### **Basic Charting**

In order to plot the basic chart of an equity's price, there are 2 ways to do so.

1. Use the Chart App

Press F10 to open the Chart app. Subsequently, enter the RIC or search for the company's name in order to plot the price of the chart.



2. In the Company Overview page, select "Price and Charts" for a chart representation of the equity

#### Some Common Technical Analysis

There are certain technical analyses for Equities

- Simple Moving Average
- Bollinger Bands
- Volume
- Relative Performance
- Rebasing





#### Pre-defined Charts in the Chart Application

Within the DataStream Chart Library application in Eikon, there are some pre-defined charts which could be useful for you when charting economic indicators as well as different types of equity instruments.

In order to access this page, you would type <DSCHART> in the Eikon Toolbar and click on the "Chartbook" tab at the top. This would lead you to the page of chart templates which you can use and modify for your usage.





## 4. Country Overview

Before investing in an equity, some investors may conduct a simple research about the Country of Exchange. In order to do so, there is a straightforward way to obtain a wholesome view of the country's financial status.

Through the country overview page, you could obtain

- 1. Country's Currency and Equity Index
- 2. Issuer Ratings
- 3. Key News and Events
- 4. Financial Markets
- 5. Central Bank
- 6. Amount of Debt
- 7. Key Economics
- 8. Comparison with other Countries
- 9. Key Information about Leadership in the Country

In order to open the country overview for any one country, simply search the country's name in the Eikon Toolbar. E.g. Search for "Singapore"







## 5. Company Overview

#### **Overview**

The Company Overview page in Eikon provides access to fundamentals, estimates, research, events, significant developments and background information on companies. It gives a comprehensive overview of a stock in order for users to determine its health and the overall state of the equity instrument.

For the purpose of discussion, we have chosen to use Apple (AAPL.O) for discussion. Type the company name or ticker into the Search box and select from the Auto suggest options presented to you. (E.g. Apple or AAPL.O)

From the overview page, the following pages can be accessed,

- 1. Summary about the instrument
- 2. Stock Valuation
- 3. Fundamentals
- 4. Trading
- 5. Private Equity
- 6. Takeover Defence
- 7. Information about Officers

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27 Jun 2016				Beta (5Y Me	onthly)	1.01	Mar 21	Apr 20	May 21	
06.22.04	Reuters Insider - Recovery After Stroke: New De	vice Aims to Kee	RTRS	Mkt Cap	US	d 511.59B		нµ1-25	Ividy-51	
26-Jun-2016				PE (LTM)		10.39	Today 5D	3M 6N	1 1Y 5Y N	o Benchmark 🗸
17:54:11	Everything that the Apple Worldwide Developer	s Conference (W	HINDUT	Div Yield		2.44%	52Wk: 89.47	Last		132.97
14:03:50	Apple's UK tax bill rises 9pc as Brussels inquiry i	nears its end	TELGPH	DR 🗐	BRL 🗗 AAPL34	1.SA (1:0.1)				20-Jul
				DR Type					🕎 Next Earn Re	port: 19-Jul-2016
21:40:35	Apple Down Over 10% in 2016 AAPL.OQ		WALLST	DR Bank					_	
16:53:13	Sourcing norms tightened for entities with state	of the art techno	MINTNE	Free Float	5.47	B Asset	Type Ordinar	y Share	5 yr CDS	30.000 bps
16:42:14	Siri leading the way in advances for Apple TV A	APL.OQ	USADAY	Outstanding	g 5.48	B Share	Class		∆ Today	-9.96%
12:17:32	Macao's first apple retail store launched AAPL.O	Q	XINHUN	IPO Date	12-Dec-198	D Lot Siz	e P'-ht-	100	∆ 1 Week	0
06:49:40	UPDATE 1-Russell reconstitution adds to U.S. ma	arket's volume, v	RTRS	First Trade	12-Dec-198	0 Voting	Rights			
06:20:39	Russell reconstitution adds to U.S. market's volu	me, volatility	RTRS	FUNDAMENT	TALS >					
05:32:53	Samsung, Apple lead top-end smartphone categories	gory in India	ECOTIM				AAPL (Sep-2015)			Industry
EVENTS >				# Stores			463		5.95% 4Q	-
20-Jul-2016 » 26				Gross Marg	jin		39.90%		4.98% 4Q	44.30%
04:00:00	Q3 2016 Apple Inc Earnings Release		翩	Operating M	Margin		28.39%		7.12% 4Q	4.02%
RECENT DEVELOPM	IENTS >			Net Margin			21.60%		7.46% 4Q	0.79%
				Asset Turno	over		0.18		(1.44%) 4Q	0.17
Apple cons	summates issuance, sale of \$1.4 bln aggregate prin	ncipal amo Del	bt Financing / Relat	ROE			9.08%		24.65% 4Q	(0.27%)
8-K Filing		Pre	ISS	Times Inter	est Earned		61.4		(36.72%) 4Q	2.7
				Debt/Equity			54.01%		70.69% 4Q	20.81%



#### News and Research

Within the Company Overview Page, the "News and Research" tab would provide users with a list of news from the past few days that relates to the equity you are searching on.

On the right hand column, Eikon has generated a Most Read list that would allow you to screen through the different headlines that others found important or interesting.

Within the News and Research tab, you could access the following information

- 1. Company News
- 2. My View
- 3. Social Media Monitor
- 4. Sector News
- 5. Reuters Investor Brief
- 6. Company Research

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27-Jun-2	016	Л		HOST	0540	<u> </u>
06:22:04		AAPL.O	Reuters Insider - Recovery After Stroke: New Device Aims to Keep Patients Motivated	MOST	READ	
26-Jun-2	016			21:40		Apple Down Over 10% in 2016 AAPL.OQ
17:54:11		AAPL.O	Everything that the Apple Worldwide Developers Conference (WWDC) was, and wasn't AAPL.OQ	22:42		BUZZ-U.S. tech companies: Chips are down after Brexit
14:03:50			Apple's UK tax bill rises 9pc as Brussels inquiry nears its end	17:54		Everything that the Apple Worldwide Developers Conference (WWDC) was, and wasn't AAPL.OQ
25-Jun-2	016		A	44-27		路透基点: 台湾群创启动280亿台币再融资-
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16:53:13		AAPL.O	Sourcing norms tightened for entities with state of the art technology AAPL.OQ	01:53		INTERVIEW-Ireland says well-placed to lure firms from London post-Brexit
16:42:14		AAPL.O	Siri leading the way in advances for Apple TV AAPL.OQ	10.09		美国个股:苹果称iPhone 6和iPhone 6
12:17:32		AAPL.O	Macao's first apple retail store launched AAPL.OQ	10.00		Plus仍在中国有售
06:49:40			UPDATE 1-Russell reconstitution adds to U.S. market's volume, volatility	22:34		Days after RBI chief steps down, India eases foreign investment rules
06:20:39		AAPL.O NDAQ.O	Russell reconstitution adds to U.S. market's volume, volatility	06-02		Reuters Insider - U.S. stocks plunge on
06:03:04		GS.N AAPL.O	H Reuters Insider - U.S. stocks plunge on British vote to leave EU	00.03		British vote to leave EU
05:32:53			Samsung, Apple lead top-end smartphone category in India	20:01		Reuters Insider - Is there potential for an interest rate cut after Brexit?
04:52:04			E Reuters Insider - Nasdaq worst performer today			Covered Call reports for Apple, SolarCity,
04:22:34		AAPL.O	E Reuters Insider - Thinking About Halloween Yet? Well, Here's a Look Inside Party City's Design Studio			Skyworks Solutions, NVIDIA, and Abbott Laboratories include trade ideas that offer returns of 20% or more!
03:54:57		AAPL.O	J     Generation     Generation			E Reuters Insider - Nasdaq worst performer today
			Operating Efficiency, Balance Sheet Quality and Valuation. (11 AAPL.O			Briefing.com: Hourly In Play (R) - 15:00 ET AJG.N
02:45:26			Here's How Samsung Could Benefit From its Acquisition Of Joyent (3 pages) - Trefis     005930.KS			Reuters Insider - Opening Bell: Stocks Slip on Brexit Worries; Microsoft to Buy
01:53:36			INTERVIEW-Ireland says well-placed to lure firms from London post-Brexit			LinkedIn
24-Jun-2	016					Apple's UK tax bill rises 9pc as Brussels inquiry nears its end
22:52:56		QCOM.O MOT.AX	Trefis Report: BlackBerry - \$7.76 Trefis Price Estimate (24 pages) - Trefis BB.TO			Tech group rejects post-Paris call for data
22:47:04		AAPL.O	DJ Chinese Company Defends Case Against Apple AAPL.O			encryption 'backdoors'
22:42:11			BUZZ-U.S. tech companies: Chips are down after Brexit			BUZZ-U.S. tech companies: Chips are down after Brexit
22:00:46			BUZZ-U.S. STOCKS ON THE MOVE-Brexit effect: Banks, energy down, miners up			Intel gets mobile chip contract from Apple -
21:59:23			BUZZ-U.S. tech companies: Chips are down after Brexit			

Going to the "My Views" tab would allow you to add specific news sections that you wish to search on based on companies, markets, business sectors, geographies etc.

Clicking on the logo would allow you to search individual news that you wish to find, or to search news based on a specific time on a date. This would allow you to search on events or news that make have caused significant movements in stock prices at that time.



#### Price and Charts

The next tab is for information about "Prices and Charts"

- 1. Time and Sales
- 2. Autex Liquidity: Indicates the market liquidity by connecting traders to those on the bid/ask side
- 3. Quote History
- 4. Price Performance
- 5. Price Momentum Model
- 6. All Quotes
- 7. Short Interest: Quantity of active short positions
- 8. VWAP: volume weighted average price
- 9. 10B-18: Based on SEC Rule 10B-18 which allows companies to repurchase stocks subject to conditions
- 10. Chart
- 11. Chart Studies



By clicking on the small "+" next to the frequency on the chart, you are able to add in other price series, spreads and ratios, technical analysis, economic indicators, fundamental data, estimates and mark out key events. It is similar to the F10 chart function.



#### Estimates

The "Estimates" tab on Eikon provides users with different estimates about a company.

- 1. Statement View
- 2. Detailed Estimates
- 3. Recommendations and Target Price
- 4. Historical Surprise
- 5. Guidance Summary
- 6. Top Analysis
- 7. Analyst Revisions Model
- 8. Interactive Income Statement

News 0         Nors 2         Name         Name         News 0         Device 0<	APL.O  APPLE INC  ited States   NASDAQ Global Select (	Consolidated I <b>Computer</b>	Hardware	▲ 93.4	40 c USD Vol	15,035			ST	ATEMENT VIEW
Set all all all all all all all all all al	overview News & Research Price	ce & Charts Estimates	Financials E	vents Ownership	Debt & Credit	Peers & Val	uation Derivatives	Filings 360 Mer	nu	
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Conservation         Conservation<										
VPNLE         108.249         1156.508         1170.910         182.796         233.716         216.241         226.210         237.762         237.762           VYY Growth %         66.0%         44.6%         9.23         7.0%         27.9%         7.75%         4.6%         4.4%         5.5%           OST OF GOODS SOLD            2.23.7%         2.46.%         4.4%         5.5%           VYY Growth %             2.23.7%         2.90.6%         1.1%         3.4%         5.5%            NYY Growth %                                                       <	NCOME STATEMENT									
Mark         Mark <th< td=""><td>EVENUE</td><td>108 249</td><td>156.508</td><td></td><td>182 795</td><td></td><td>216.241</td><td>226.210</td><td>237.062</td><td>223.6</td></th<>	EVENUE	108 249	156.508		182 795		216.241	226.210	237.062	223.6
Control         Control <t< td=""><td>Yr/Yr Growth %</td><td>66.0%</td><td>44.6%</td><td>9.2%</td><td>7.0%</td><td>27.9%</td><td>-7.5%</td><td>4.6%</td><td>4.8%</td><td>-5.7</td></t<>	Yr/Yr Growth %	66.0%	44.6%	9.2%	7.0%	27.9%	-7.5%	4.6%	4.8%	-5.7
Y/Y Growth %         Image	OST OF GOODS SOLD				111,808	140,089				
ROSS INCOME         Image: mode shows in the shows	Yr/Yr Growth %					25.3%	-6.1%	4.8%	5.5%	
Yr/Yr Growth %       1       1       9.7%       3.27%       9.90%       4.4%       6.5%       1.11         ROSS PROFT MARCIN       40.05       43.3%       3.76%       3.86%       44.1%       3.92%       3.96%       3.95%       3.88         Yr/Yr Growth       1.1%       3.4%       4.6.3%       1.06%       1.16%       0.08%       0.3%       0.00%       1.11         DEXPENSE	ROSS INCOME									
ROSS PROFIT MARGIN         44.05%         44.39%         37.6%         38.6%         44.01%         99.2%         39.6%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         39.5%         30.5%         31.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%         30.5%<	Yr/Yr Growth %				9.7%	32.7%	-9.0%	4.9%	6.5%	-11.
YrYr Growth       11%       34%       4.63%       10%       11%       0.08%       0.3%       0.0%       1.1%         DDENDESE       Image       Image       4.475       6.041       8.067       9.966       10.630       12.013       11.11         YrYr Growth %       Image       Image       3.50%       3.35%       12.35%       12.35%       12.013       11.11         YrYr Growth %       Image       Image </td <td>ROSS PROFIT MARGIN</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	ROSS PROFIT MARGIN									
SDEPENSE         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         ()         <	Yr/Yr Growth	1.1%	3.4%	-6.3%	1.0%	1.5%	-0.8%	0.3%	0.0%	
YrYr Growth %         Image: Signal Sign	&D EXPENSE									
LLING & MARKETING EXPENSE         Image: state	Yr/Yr Growth %				35.0%	33.5%	23.5%	6.7%	13.0%	
YYY Growth %         Image: Marking state of the st	ELLING & MARKETING EXPENSE									
SEA EXPENSE         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1) <th< td=""><td>Yr/Yr Growth %</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Yr/Yr Growth %									
YYYY Growth %                                                                                                        <	G&A EXPENSE									
BITDA         335.04         58.58         58.09         60.449         82.487         77.555         74.488         77.800         77.000           Margin%         33.29         33.31%         33.31%         35.35         33.31%         33.31%         35.35         33.31%         33.31%         35.35         33.31%         33.31%         35.35         33.31%         33.31%         35.35         33.31%         33.31%         35.35         33.31%         33.31%         35.35         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         33.31%         34.30%         53.83%         33.31%         34.30%         53.83%         33.31%         34.30%         53.83%         33.31% <t< td=""><td>Yr/Yr Growth %</td><td></td><td></td><td></td><td>10.7%</td><td>19.5%</td><td>-0.1%</td><td>2.1%</td><td>8.1%</td><td></td></t<>	Yr/Yr Growth %				10.7%	19.5%	-0.1%	2.1%	8.1%	
Margin%         32.9%         37.4%         33.9%         33.1%         35.5%         33.1%         32.9%         32.8%         33.1%         33.1%         33.1%         33.1%         32.9%         32.8%         33.1%         33.1%         33.1%         33.1%         32.9%         32.8%         33.1%         33.1%         33.1%         33.1%         32.9%         32.8%         33.1%         33.1%         33.1%         32.9%         32.8%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         32.9%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.1%         33.3%         33.0%         33.3%         33.0%         33.3%         33.0%         33.3%         33.0%         33.3%         33.0%         33.3%         33.0%         33.3%         33.0%         33.0%         33.0%         33.0%         33.0%         33.0%         33.0%         33.0%         33.0%         <	BITDA									
BITDA REPORTED         6.33          8.85         9.97         1.124         9.66         1.378            Yn'Yr Growth %. <td< td=""><td>Margin%</td><td>32.9%</td><td>37.4%</td><td>33.9%</td><td>33.1%</td><td>35.3%</td><td>33.1%</td><td>32.9%</td><td>32.8%</td><td></td></td<>	Margin%	32.9%	37.4%	33.9%	33.1%	35.3%	33.1%	32.9%	32.8%	
YYYY Growth %         88.1%         -         -         15.4%         44.3%         332.9%         74.42%         -           SITDA REPORTED         -         55.756         172.707         222.576         71.685         72.387         -           Margin*         -         32.96%         945.5%         95.256         71.685         72.387         -           SPRECIATION         -         32.96%         94.5%         95.256         33.2%         32.0%         -           Y/YY Growth %         -         -         5.800         6.900         9.200         12.329         13.039         13.400         13.03           Y/YY Growth %         -         -         19.0%         33.3%         34.0%         5.8%         2.8%         .3           Y/YY Growth %         -         -         11.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.	BITDA PER SHARE									
SITDA REPORTED         -         -         55.76         172.707         222.576         71.685         72.387         -           Margin%         -         -         32.6%         94.5%         95.2%         33.2%         32.0%         -           Margin%         -         -         32.6%         94.5%         95.2%         33.2%         32.0%         -           YnYr Growth %         -         -         50.00         9.000         12.329         13.09         13.400         13.0           YnYr Growth %         -         -         9.000         33.3%         34.0%         5.8%         2.8%         3.3           MORTIZATION         -         -         -         11.00         1.000         1.083         82.500         -         -           YnYr Growth %         -         -         6.757         7.746         11.29         12.768         13.670           YnYr Growth %         -         -         6.757         7.746         11.275         11.796         12.48         13.670           YnYr Growth %         -         -         1.768         41.7%         4.8%         5.7%         9.6%           YnYr Growth %         -	Yr/Yr Growth %	81.1%			15.4%	44.3%	-32.9%	44.2%		
Margin%         Image: Margin%	BITDA REPORTED									
CPRECIATION         -         -         5800         6300         9.200         12.229         13.039         13.400         13.1           Yn'ri Growth %         -         -         -         19.0%         33.3%         34.0%         5.8%         2.8%         .3           MORTIZATION         -         -         960.00         1.100         1.300         1.083         825.00         -           Yn'r Growth %         -         -         14.6%         18.2%        6.7%         2.38%         -           PERCIATION & AMORTIZATION         -         -         14.6%         11.257         11.796         12.468         13.670           Yn'r Growth %         -         -         17.7%         41.7%         4.8%         5.7%         9.6%           Yn'r Growth %         -         -         17.6%         41.7%         4.8%         5.7%         9.6%	Margin%			32.6%	94.5%	95.2%	33.2%	32.0%		
Viry Growth %         -         -         -         190%         333%         340%         56%         2.8%         .3           MORTIZATION         -         -         960.00         1.100         1.003         1.083         825.00         -         .4           V/V Growth %         -         -         14.6%         18.2%         -         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4         .4	EPRECIATION			5,800	6,900	9,200	12,329	13,039	13,400	13,0
Micritization         -         -         96000         1.100         1.300         1.003         825.00         -           Yr/Yr Growth %         -         -         14.6%         18.2%         -16.7%         -2.38%         -           PRECATION & AMORTIZATION         -         -         6.757         7.7946         11.257         11.796         12.468         13.670           Yr/Yr Growth %         -         -         -         17.6%         41.7%         4.8%         5.7%         9.6%           4ff         33.790         55.241         48.999         52.503         71.230         60.410         63.128         66.375         56.2	Yr/Yr Growth %				19.0%	33.3%	34.0%	5.8%	2.8%	-3.
Three controls         -         -         -         14.5%         18.2%         -         -         23.8%         -           PERECIATION & AMORTIZATION         -         -         6.757         7.946         11.257         11.796         12.468         13.670           Yr/Yr Growth %         -         -         -         17.6%         41.7%         4.8%         5.7%         9.6%           IT         33.790         55.241         48.999         52.503         71.230         60.410         63.128         66.375         56.2	MORTIZATION				1,100	1,300	1,083	825.00		
Childcentove andoritization         -         -         -         -         1,237         1,730         1,248         13,570           Yn/Y Growth %         -         -         -         17,6%         41,7%         4.8%         5,7%         9,6%           attraction         33,790         55,241         48,999         52,503         71,230         60,410         63,128         66,375         56,2					7.046	11.2%	-16.7%	-23.8%		
and contract         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - <t< td=""><td>Vr/Vr Growth %</td><td></td><td></td><td></td><td>17,946</td><td>41.7%</td><td>11,796</td><td>12,468</td><td>13,670</td><td></td></t<>	Vr/Vr Growth %				17,946	41.7%	11,796	12,468	13,670	
	BIT				52.503	41.7%	4.8%	5.7%	9.0%	50.0
	211									

From the Statement Views page, you can get historical data for the past 5 years and it may feature data for the next three years as well.



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ted States   NA	APPLE IF SDAQ Global S	NC 🔻 ielect Consolida	ted   Computer H	ardware	~~ ♥92	2.04 c USD -		% Vol 46,	622,188		RECOMMENDATIONS	& TARGET PRICI
verview Ne	ws & Research	Price & Cha	ts Estimates	Financials	Events Ownershi	p Debt & Cred	lit Peers & V	aluation D	erivatives	Filings 360	) Menu	
See What's C	'hanged										<b>M</b> Te	Il us what you think
	TIONS & TARG	FT PRICE									Pic	a us what you unit
Current Recor	mmendation	1.81 BUY	Current Targ	et Price	\$124.52							[
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	ON SUMMARY											
		Analysts	Per level		# Analysts 54	53 52 51 51	50 50 51	49 48 49 4	9 49 48 4	9 48 50 50	49 49 49 46 47 4	1-StrongBu
	28-Mar-2016	28-Apr-2016	5 28-May-2016		15	15 15 15 16	16 16 16	14 14 16 1	6 16 16 1	3 16 16 16	16 17 19 17 16	17 17 ¹ 01011g00
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- Buy	20	21			160.00							z-Buy
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Sell					.0 140.00 E		.1				1 1-1-1-1	з-ноіа
- StrongSell					20	28 27 28 ₂₅	24 - 24 25	2 ⁶ 1-22/126 ⁻²	22/ 20 20 20 20 21 20 25		25 or 21	
ec Mean	1.8	1.9	1.8	1.8	120.00	7	Yn. 1		h.	MJM	2 2	2 22 4-Sell
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Target				100.00			12 1:	2 12 11 1	11	~~~ , ,	5-StrongSe	
rice Target	28-Mar-2016	5 28-Apr-2016 28-May-2016 Current			-Mar-2016 28-Apr-2016 28-May-2016 Current				88 80 80 80		8 8	
edian	\$130.00	\$120.00	\$120.00	\$120.00		1 ^A 1 ^A 1 ^A 1 ^A	14 15 15 .	15 . 15 . 15 . 15 All 19 . 18 . 29	Bung all all see	0 15 15 15	16 . 16 . 16 . 16 . 16 . 16	, o , o
ean	\$133.55	\$125.24	\$124.30	\$124.52		- Target Price	Buy Hold	Sell	StrongSell* -	- Price	Recommendation Mean	
RECOMMENDAT	ION & PRICE TAR	GET DETAIL										
					nt Recommendation	Rec Date	Review Date					
						Rec. Date +	Review Date					
CRISPIDEA		Ajn	iera, Shejal			24-May-2016	06-Jun-2016	*****	insuf-hist		49.93%	06-Jun-2016
HILLIP SECUR	RITIES RESEARC	CH PTE Ho,	Kang Wei		1-BUY	10-May-2016		insuf-hist	insuf-hist	119.37	29.69%	10-May-2016
OPPENHEIMER	R & CO., INC.	Uer	kwitz, Andrew P		3-PERFORM	27-Apr-2016	13-Jun-2016	****	****			
	OMPANY INC	Ma	tin Laura A		1-STRONG BUY	05-Apr-2016	14- lun-2016	+++++	insuf-hist	150.00	62 97%	05-Apr-2016

The research team in Eikon contacts analysts to ask them about their opinion about a stock, subsequently, they would assign a number (1: Strong buy to 5: Strong sell) to their recommendations, and subsequently find the average which would stand for their recommendation on whether to buy or sell the stock.

For example, here, analysts in general believe you should buy into Apple.



#### Financials

The "Financials" page is good for users who is interested about the Fundamentals of the company. From here, the following information is available.

- 1. Financial Statements (Income Statement, Balance Sheet and Cash Flow)
- 2. Operating Metrics
- 3. Segments
- 4. Major Customers
- 5. Ratios Key Metrics
- 6. Ratios Overview
- 7. Ratios Profit/Value/Risk
- 8. Earnings Quality

AAPL.O  APPLE INC  United States   NASDAQ Global Select Consolidated   Computer Overview News & Research Price & Charts Estimates	r Hardware s Financials Millions of U.S.	Events Owner	▲ 93.40 c US ership Debt & 0	D Vol <b>15,035</b>			INCOME STATEMENT INC
Overview News & Research Price & Charts Estimates	s Financials	Events Own	ership Debt &				
	Millions of U.S.	Dollare		cieuit reeis a	Valuation Deri	vatives Filings 360 Menu	
INCOME STATEMENT  Annual Standardised in		Doliara					[+] Show All 📈 📓
Period Annual View Standardised	• *						
	7 2015	2014		2012			
Earnings Quality Score	91	90	90	67	67		
Period End Date	26-Sep-2015	27-Sep-2014	28-Sep-2013	29-Sep-2012	24-Sep-2011		
Revenue							
Other Revenue, Total							
Total Revenue	233,715	182,795	170,910	156,508	108,249		
Cost of Revenue, Total							
Gross Profit	93,626	70,537	64,304	68,662	43,818		
<ul> <li>Selling/General/Admin. Expenses, Total</li> </ul>							
Research & Development							
Depreciation/Amortization							
Interest Expense, Net - Operating							
Interest/Investment Income - Operating							
Interest Expense(Income) - Net Operating							
Interest Exp.(Inc.),Net-Operating, Total							
Unusual Expense (Income)							
Other Operating Expenses, Total							
Total Operating Expense	162,485	130,292		101,267	74,459		
Operating Income	71,230	52,503	48,999	55,241	33,790		
<ul> <li>Interest Expense, Net Non-Operating</li> </ul>							
Interest/Invest Income - Non-Operating							
Interest Income(Exp), Net Non-Operating							
Interest Inc.(Exp.),Net-Non-Op., Total							
Gain (Loss) on Sale of Assets							
Other, Net							
Net Income Before Taxes		53,483		55,763	34,205		
Provision for Income Taxes							
Net Income After Taxes							
Minority Interest							
Equity In Affiliates							
U.S. GAAP Adjustment							
Net Income Before Extra. Items	53,394	39,510	37,037	41,733	25,922		

On the Ratios - Overview, you can find all kinds of ratios relating to information extracted from the accounting statements.

Segments would provide you the information about the different business segments of the company and the respective revenue for each segments. Note that different segments may belong to different industries.



#### **Events**

The "Events" page is useful for users to monitor the occurrence of certain events that may impact the price of the equity. These events include, corporate announcements, or dividend related dates. Information available include:

- 1. Corporate Events
- 2. Company Deals
- 3. Corporate Actions Calendar
- 4, Capital Change Overview
- 5. Capital Change Event Detail
- 6. Dividend Overview
- 7. Dividend Payment Detail

eP ← → AAPL.O Q E Apple Inc i Corporate Events	C = _ @ ×
AAPL.O - APPLE INC	CORPORATE EVENTS EV
United States I NASDAQ Global Select Consolidated I Computer Hardware	
Overview News & Research Price & Charts Estimates Financials Events Ownership Debt & Credit Peers & Valuation Derivatives Filings 360 Menu	
EVENTS 😑 Last 1 Year & Next 1 Year, Event Types (All), All, Time Period	View Style: 📰 📾   🌣 •
Period Last 1 Year & Next 1 Year VEVent Types (All) Content Type All Group By Time Period Update View	
	[-] Collapse All Groups
TODAY'S EVENTS (0)	
No Events found for your search at this time	
<ul> <li>UPCOMING EVENTS (2)</li> </ul>	
Date/Time A Type R/C Event Name	Content Add 🕣
20-Jul-2016 » 26-Jul-2016 AMC S = AAPLO Q3 2016 Apple Inc Earnings Release	
25-Feb-2017 » 01-Mar-2017 - 01:00 💼 🖪 AAPL.O Apple Inc Annual Shareholders Meeting	
Displaying 1 - 2 of 2 records	
→ PAST EVENTS (17)	
Date/Time  Type RIC  F Event Name	Content Add
05-May-2016 NTS # AAPLO Dividend For AAPL4.BA - 0.0570 USD	
05-May-2016 NTS a APLO Dividend For AAPL - 0.5700 USD	
27-Apr-2016 AMC \$ = AAPL.O Q2 2016 Apple Inc Earnings Release	•
27-Apr-2016 05:00 💲 @ AAPL.O Q2 2016 Apple Inc Earnings Call	🗎 🗐 🕫 📀
27-Feb-2016 01:00 💼 @ AAPLO Apple Inc Annual Shareholders Meeting	
04-Feb-2016 NTS 💼 🖶 AAPL.O Dividend For AAPL4.BA - 0.0520 USD	
04-Feb-2016 NTS 💼 🖶 AAPL.O Dividend For AAPL - 0.5200 USD	
27-Jan-2016 AMC 💲 🖪 AAPL.O Q1 2016 Apple Inc Earnings Release	•
27-Jan-2016 06:00 \$ # AAPL.0 🖲 Q1 2016 Apple Inc Earnings Call	🗈 🗏 🕕 📀
05-Nov-2015 NTS 💼 🖅 AAPL.O Dividend For AAPL4.BA - 0.0520 USD	
05-Nov-2015 NTS 💼 ச AAPL.O Dividend For AAPL - 0.5200 USD	
28-Oct-2015 AMC S - AAPL.O Q4 2015 Apple Inc Earnings Release	<b>*</b>
28-Oct-2015 05:00 💲 - AAPL.O Q4 2015 Apple Inc Earnings Call	🕒 🗏 =0 📀
06-Aug-2015 NTS 🗐 🥃 AAPL.O Dividend For AAPL4.BA - 0.0520 USD	
06-Aug-2015 NTS 🔠 🥃 AAPL.O Dividend For AAPL - 0.5200 USD	
22-Jul-2015 AMC 💲 ச AAPL.O Q3 2015 Apple Inc Earnings Release	<b>\$</b>
22-Jul-2015 05:00 \$ # AAPL.O Q3 2015 Apple Inc Earnings Call	🐚 🔳 🗉 🚸
Displaying 1 - 17 of 17 records	



#### Ownership

Ownership data shows a company's shareholder list, sometimes it reflects the company's economy and governmental background.

- 1. Ownership Summary
- 2. Shareholders Report
- 3. Shareholders History Report
- 4. Fund Ownership Summary
- 5. Fund Shareholders Report and History Report
- 6. Insider/Stakeholder
- 7. Smart Holdings Model
- 8. Equity Holdings
- 9. Private Equity Holdings

රී ← → 🛛 AAPL.O Q 📴 Apple Inc I Ownership Summe	ary					C = _ @ ×
AAPL.O  APPLE INC  United States I NASDAQ Global Select Consolidated I Computer Hardway	ire	→ 93.40 c USD Vol 15	5,035		OWNE	RSHIP SUMMARY OWNS
Overview News & Research Price & Charts Estimates Fina	ncials Eve	ents Ownership Debt & Credit F	Peers & Valuation Deriva	itives Filings	360 Menu	
OWNERSHIP SUMMARY					🗭 Send us fe	edback 🔀 📔 🕐
Primary Exchange: Free Float: E NO MARKET (EG, 5,474,052,371 UNLISTED)	Free Fi 99.94	loat %: i Shares Ou 1% 5,477,42	tstanding: i S 5,000 0	trategic Entities Iwnership %: 1.06%	i Market O USD): 511,59	Capitalization (M
▼ TOP INVESTORS (AS OF LATEST FILING)	View All	▼ RECENT ACTIVITY				
		BUYS		SELLS		Activity Details
			Value O Shares			Value O Shares
			+23.94M			-45.76M
			+9.81M			-25.97M
		Capital Research Global Investors	+8.21M	Fidelity Manag	gement & Research C	-11.38M
		SG Americas Securities 1.1.C	+7.83M	Coatue Capita		-6.81M
4 Fidelity Management & Research Company						5.05M
		Goldman Sachs & Company, Inc.	+7.28M	BNP Paribas 5	ecunties Corp. North	-5.85M
		BREAKDOWN (AS OF LATEST FILING)     Turne Style Location Botation	Turnovor			- 0
		Type Style Location Rotation	Investore	° 0/5	Desition (M Sharos)	
		туре	Investors		Position (M Shares)	Value (M USD)
		▼ INSTITUTIONS	3,202	56.73%	3,216.35	349,979.67
						330,946.83
						19,032.83
		▼ STRATEGIC ENTITIES				
0.81%   44.28M shares   31-Mar-2016   +0.13M shares	LOW					
10 Invesco PowerShares Capital Management LLC           0.79%         43.26M shares         31-Mar-2016         -4.19M shares		Government Agency				

Hovering over any name in the list of investors would cause this icon  ${\,\,}^{\,\,}$  to pop up.

Pressing on this button would allow you to generate a visual overview of the historical holdings of this stock by this specific investor. Also, the top 10 Holdings of the company would be displayed in the form of a pie chart.



#### Debt and Credit

As the name suggests, this page allows users to have a more in-depth view on the debt structure of the company as well as its credit risk. The list of Credit Default swaps available for the company can also be found.

- 1. Debt Structure
- 2. Issuer Curve and Ratings
- 3. Exchangeables and CNVs
- 4. CDS Overview
- 5. CDS All Quotes
- 6. CDS Charts
- 7. CDS Calculator
- 8. Combined Credit Risk
- 9. Text Mining Credit Risk
- 10. Structural Credit Risk
- 11. Smart Ratios Credit Risk





#### Peer and Valuation

One good way to analyse a company other than through fundamental analysis is to do peer comparison with other similar stocks in the market.

- 1. Peer Analysis
- 2. Sector Competitors
- 3. Index Competitors
- 4. Stock Comparison
- 5. Value Chains
- 6. Relative Valuation Model
- 7. Relative Valuation
- 8. Intrinsic Valuation
- 9. Value momentum
- 10. Price Target Builder
- 11. Combined Alpha Model

S	÷	→ AAPL.O C	Q 🔢 Apple Inc   Peer Analysis							C = _ & ×
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F	Ъ	ER ANALYSIS	For Apple Inc (Aaf	PL.O)					🗭 Tell us wha	t you think 🛛 😭
	For	ward Valuation	✓ H ▼ Add Column	🗄 🛛 Add Ran	C Edit Peers				🌣 🔒 🛛 [	🖣 🔻 🕅 🕶 🖛 🔻
		ldentifier	Company Name	EV / Revenue (SmartEstimate ®) (NTM, Consolidated)	EV / EBITDA (SmartEstimate ®) (NTM, Consolidated)	Price / EPS (SmartEstimate ®) (NTM, Consolidated)	Price / Cash Flow Per Share (SmartEstimate ®) (ntm, Consolidated)	Price / Book Value Per Share (SmartEstimate ®) (ntm, Consolidated)	Price / Sales Ratio - SmartEstimate® (NTM, Consolidated)	Dividend Per Share Yi % (SmartEstimate®) (NTM, Consolidated)
			Apple Inc	2.40	7.25	10.56	7.58	3.69	2.3%	2.
			HP Inc	0.50	5.57	7.54	7.01		0.5%	
			International Business Machines Corp	2.16	8.68	10.64	8.96	8.02	1.8%	
			Cisco Systems Inc	2.08	6.24	11.37	10.00	2.06		
			Motorola Solutions Inc	2.36	8.75	13.53	8.72		2.2%	
			Microsoft Corp	3.50	9.24	17.25	12.49	5.05		
			Samsung Electronics Co Ltd	0.80	3.26	9.52	4.94	1.09		
			Nokia Corp	0.93	7.44	18.89	19.01	1.55	0.8%	
<		Add Security								

As shown in the screenshot above of the peer analysis for Apple, a list of similar equity instruments and their respective data will be displayed in data form.

Should you have a preferred list of peers, you could always click the "Edit Peers" button in blue to choose your own comp set. Alternatively, you could type the name or RIC of the equity in the "Add Security option offered at the bottom of the page.



#### Derivatives

There are a few equity derivates that are tradable, but people generally purchase options and futures on equities.

Thus, in Eikon, we have provided a list of the most traded options for your perusal. Similarly, a more detailed list of futures and warrants available.

- 1. Most Traded Options
- 2. Options
- 3. All Futures
- 4. Warrant Overview

e ^p ← → AAPL.O	Q 🔢 Apple Inc   Most Tra	ded Options							C ≡ _ ₽ ×
	INC •	~1	<b>▲</b> 93.4	0 c USD Vol	15,335			MOST	TRADED OPTIONS EMTO
United States   NASDAQ Glob	al Select Consolidated I Comput	er Hardware	<b>~</b>						
Overview News & Resea	rch Price & Charts Estimate	es Financials Events	Ownership	Debt & Credit	Peers & Valuation		Filings 360 Mer	าน	
MOST TRADED OP	TIONS								
1 - 100 of 1256								First < Prev	2 3 4 Next> Last»
Name	Display RIC Underlying	Exchange	Last E	Bid Ask	Net Chg Cl	lose	Vol Today 🔻	Open Int.	Vol v Open Int.
a AAPL 1JI6 90.0 P	aapl.o	OPQ			C	).36		4,324	
a AAPL 1JI6 88.5 P	a AAPL.O	OPQ			C	).27		501	
a AAPL 1JI6 89.0 P	a AAPL.O	OPQ			C	).25		825	
a AAPL 1JI6 89.5 P	a AAPL.O	OPQ			C	).29		1,149	
a AAPL 1JI6 90.5 P	a AAPL.O	OPQ				).48		1,113	
Jule 92.5 P	a AAPL.O	OPQ				1.60		19,495	
a AAPL 1JI6 88.0 P	a AAPL.O	OPQ			C	0.18		858	
a AAPL 1JI6 88.5 C	a AAPL.O	OPQ			٤	3.91			
a AAPL 1JI6 89.5 C	a AAPL.O	OPQ				1.02			
a AAPL 1JI6 89.0 C	a AAPL.O	OPQ			5	5.10		53	
a AAPL 1JI6 91.0 P	a AAPL.O	OPQ			C	0.52		3,710	
a AAPL 1JI6 90.0 C	a AAPL.O	OPQ			4	1.05		492	
JAPL Jule 100.0P	a AAPL.O	OPQ			e	6.65		29,087	
a AAPL 1JI6 88.0 C	a AAPL.O	OPQ			Ę	5.50		60	
a AAPL 1JI6 91.5 P	a AAPL.O	OPQ				0.63		1,404	
a AAPL 1JI6 90.5 C	a AAPL.O	OPQ				3.24		213	
a AAPL Jul6 100.0C	a AAPL.O	OPQ			C	0.17		65,454	
a AAPL 1JI6 92.0 P	a AAPL.O	OPQ			C	).76		1,727	
a AAPL 1JI6 100.0P	a AAPL.O	OPQ			e	6.60		23,760	
a AAPL Jul6 97.5 P	a AAPL.O	OPQ			4	1.49		30,495	
a AAPL Julé 97.5 C	a AAPL.O	OPQ			C	0.52		25,025	
a AAPL Jul6 90.0 P	a AAPL.O	OPQ			C	).87		34,569	
a AAPL 1JI6 91.5 C	a AAPL.O	OPQ			2	2.58		299	
a AAPL Jul6 95.0 C	a AAPL.O	OPQ				1.35		51,697	
a AAPL 1JI6 92.5 P	a AAPL.O	OPQ				).97		1,725	
a AAPL 1JI6 92.0 C	aAPL.O	OPQ			2	2.23		812	
a AAPL 1JI6 100.0C	a AAPL.O	OPQ			C	).02		22,807	
a AAPL 1JI6 95.0 P	a AAPL.O	OPQ			2	2.20		5,496	
a AAPL 1JI6 93.0 P	a AAPL.O	OPQ				1.10		8,087	
a AAPL 1JI6 94.0 P	a AAPL.O	OPQ				1.56		3,374	
a AAPL 1JI6 92.5 C	a AAPL.O	OPQ				1.88		544	
a AAPL Jul6 105.0C	a AAPL.O	OPQ			C	0.03		52,367	
AAPL Jul6 105.0P	AAPL.O	OPQ			11	1.65		20,751	

While you may heard of options and futures, warrants is also a type of derivative available on the market.

Similar to options, a warrant confers a right for you to buy and sell an instrument. This may prompt you to categorise options and warrants as the same thing. However, there are a few key differences. Warrants are usually issued by the company and are traded OTC more than in an exchange. When an investor exercises their warrant, they are issued a newly issued stock instead of an outstanding one. Lastly, the expiry of a warrant is much longer than an option and often come in tenors lastly up to a few years rather than just a few months.



#### Filings

The "Filings" tab is just a one stop place for you to refer to recent company filings by the company such as their Form 8-K etc.

APL.O - APPLE INC	C <b>*</b>		~	~ ▲ 93.4	0 c USD Vol	15,335			COMPANY FILINGS (NEV
ed States   NASDAQ Global Seleverview News & Research	ect Consoli Price & Ct	dated   Computer F narts Estimates	lardware Financials Ev	vents Ownership	Debt & Credit	Peers & Valuation	Derivatives Filings	360 Menu	
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# 6. STARMINE Models

### **Overview**

STARMINE models provide quantitative modelling and derived outputs, with unique value-add analytics and predictive financial modelling that help you make investment decisions.

ළු ← → Q 😑 StarMi	ine Ove	rview								C	?≡_⋴×
										🗭 Tell u	is what you think
STARMINE OVERVIEW											
MODEL PERFORMANCE	Regi	ion Unite	d States	<ul> <li>Perio</li> </ul>	d 1 Month 🗸	Market Ca	p Overall (Top 3	000) 🗸			
► STARMINE MODELS											
► STARMINE ANALYTICS			Forningo	Applyst	Prico	Polativo	Intrincia		Short	AS C	or May 31, 2016
FAQS			Quality	Revisions	Momentum	Valuation	Valuation	Momentum	Interest	Holdings	Insider
LIPPER ALPHA INSIGHT	Тор І	Decile ?	1.4%	1.7%	1.3%	0.8%	1.2%	0.9%	2.1%	0.9%	1.3%
ANALYST AWARDS	Botto	om Decile	? 2.5%	0.4%	0.5%	3.6%	1.6%	2.9%	0.1%	2.3%	2.4%
	Sprea	ad ?	-1.1%	1.3%	0.7%	-2.8%	-0.5%	-1.9%	2.0%	-1.4%	-1.2%
STARMINE SUPPORT	Bmar	rk Model	2 -2.8%	0.7%	1.2%	-0.4%	-0.4%	-0.9%	2.2%	1.0%	-1.0%
	IC ?	l Weight /	-0.05	0.01	0.01	-0.07	-0.02	-0.03	0.06	-0.02	-0.05
	Equa	i weight A	verage: 1.4%								
		1 Month	Decile Spread								
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			Earnings Quality	Analyst Revisions	Price Momentum	Relative Valuation	Intrinsic Valuation	Value Momentum	Short Interest	Smart Holdings	Insider
		v is mode	el performance n								
			a performance i	leadurear							

In the Eikon Toolbar, enter **STARMINE>** and hit enter in order to pull up the above page. From this page, you are able to view the overall model performance of STARMINE's predictions so far.

STARMINE uses two measures of stock selection. Firstly, a decile spread is used to analyse the model scores on the last trading day of the month and create two equally weighted portfolio based on these score. They then hold these stocks until the end of the holding period and they subsequently rebalance, ignoring transaction treads. They also utilise a global score in order to evaluate global performance, a region=relative score to examine performance in a region.

In this manual, we will briefly look at the following models.

- 1. Price Momentum Model
- 2. Analyst Revision Model
- 3. Earnings Quality
- 4. Relative Valuation
- 5. Intrinsic Valuation
- 6. Value Momentum
- 7. Credit Risk Combined Model

For every model covered, a detailed description would be provided, followed by an explanation and demonstration using Apple's equity.



### How to Use StarMine Models?

In order to obtain results for any of the StarMine models, one should first navigate to the home page of the focus company (equity instrument first).

For example, we are searching for the StarMine models for the Apple Equity (AAPL.O).

1. In the Eikon Toolbar, search for the equity instrument you wish to view. (e.g. AAPL.O)

<b>→</b> °	→ AAF	L.O Q 🔠 Apple Inc   Summary	y									ᢗ ≡ _ ▫ ×
NEW	Welcome	to the new faster, more powerful Company	Overview. See what									🗭 Send feedback
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BUSINE	SS SUMMAR	Y>				PRICE PERFORM	IANCE >					
Apple I	nc. designs	, manufactures and markets mobile commu	nication and media (	devices, personal		Open						Price
computers and portable digital music players and sells a variety of related software, services, peripherals,								92.04	A 12.0 32.04			USD
networ include	king solutio	ns and third-party digital content and applic ad. Mac. iPod. Apple TV. a portfolio of consu	ations. The Compar Imer and profession	y's products and ser al software applicatio	vices ons.	Bid / Ask	93.	01/93.24	$\mathcal{M}$			110
the iOS	and OS X	operating systems, iCloud and a variety of a	ccessory, service ar	nd support offerings.	The	VWAP			/ ~			105
Compa portabl	ny offers a e digital mi	range of mobile communication and media ( isic players, as well as a variety of related sc	devices, personal co oftware, services, pe	omputing products ar ripherals, networking	nd I	Turnover					~	100
solution	ns and third	l-party hardware and software products. The	Company's primary	products include iPl	none,	Volume		10,514				$\sim$
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12:10:1	14	美国工版:韩国公正义汤安贝云标,正为-	平未 部万争坝 进门			DR 🖥	BRL 🗗 AAPL34	.SA (1:0.1)	52WK: 89.47 12-May			20-Jul
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Here is where to find each model to be discussed:

- 1. Price Momentum Model Prices and Charts
- 2. Analyst Revision Model Estimates
- 3. Earnings Quality Financials
- 4. Relative Valuation Peers and Valuation
- 5. Intrinsic Valuation Peers and Valuation
- 6. Value Momentum Peers and Valuation
- 7. Credit Risk Combined Model Debt and Credit



### Price Momentum Model

#### **Overview**

StarMine's Price Momentum Model is a percentile ranking of stocks based on recent historical price performance. The stock ranking scores are on a scale from one to a hundred (1-100). The model is highly predictive of relative price movement and is effective across stocks in each category, investment style, and market sector.

#### Long Term Component

The Long Term component exploits the tendency of stocks with strong performance over the past 6-12 months to continue to outperform going forward.

It compares the average daily closing price over the last six months to that over the last 12 months, rewarding stocks whose prices have increased over the last year.

This component is normalized by the trailing 12-month volatility, as measured by the standard deviation of the last 12 monthly price changes. This adjustment amplifies scores for stocks whose price changes were achieved in steady moves and moderates scores for those whose changes were inconsistent or the result of sharp jumps.

#### Mid Term Component

The Mid Term component compares the average daily closing price over the last ten trading days to that over the last three months, rewarding stocks whose 10-day average is greater than their 3-month average.

The Mid Term component is normalized by volatility, using an exponentially weighted moving average of daily returns over the last year.

#### Short Term Component

The Short Term component compares the most recent closing price to the average daily closing price over the last ten trading days. This component captures the phenomenon that, at short-term horizons, there is negative auto-correlation in returns - the biggest winners over the last week tend to be losers in the following week or so.

The Short Term component rewards stocks whose prices have decreased over the last ten days. It is normalized by volatility, using an exponentially weighted moving average of daily returns over the last year.

#### Industry Component

The Industry component captures the power of price momentum at the industry level. Namely, industries that have outperformed over the last 1-2 months tend to continue to outperform. The model ranks stocks on the basis of the average price change of its industry/region peers over the last month.



### How to Use the Price Momentum Model?



When you click on the "Price Momentum Model" option under the "Prices and Charts" tab, the above page would load.

There are a few things to note from the above page.

#### Firstly, the Model Summary.

In the Model Summary, there is a "11" which is highlighted in red. What this figure means is that across all the components, the equity beat 11 percentile of its peers, here in comparison to "North America" and "United States"

#### Secondly, the Model History.

In the Model History, there is a chart providing the past performance of the price momentum model and the trading price of the equity instrument. The blue line on the chart represents the price momentum predicted by the model against the actual trading price, which is represented by the orange line.

An important thing to note is the colour bar located at the far right of the chart. The different colours of this bar which coincides with the figures in the Model Summary indicate whether the recommendation is Strong Sell, Strong Buy or anything in between.



Bright Red (0-10): Strong Sell Dull Red (10-30): Sell Grey (30-70): Hold Dark Green (70-90): Buy Bright Green (90-100): Strong Buy



Thirdly, at the bottom of the page, there is a section about Model Input.

Here, several charts which show the breakdown of the different components, the Long, Mid, Short Term and Industry allows users to have a better understanding about how the final figure "11" was derived.

One can view the criteria here, for the Long Term and Mid Term Component which states that "Higher is Better" for the Long and Mid Term periods is better. While this is easily understood - a higher price in the long run would signal an upward trend in price, the short term component may not be so easily understood at first glance.

While the LT and MT components try to explain the longer term price trend, the price should be declining in the short term in order to encourage a smooth entrance into the market. Hence "Price decline is better" would imply that the investor is able to buy into the market at a lower price.

The industry component would simply provide the investor an overview of how the specific equity is performing in comparison to other equity instruments in the same industry. Hence, even if its other components are performing badly but the equity is performing well compared to others in the same industry, it could imply that the industry on a whole is on a decline.



## Analyst Revisions Model

#### **Overview**

StarMine's Analyst Revisions Model (ARM) is a percentile (1-100) ranking of stocks based on changes in analyst sentiment, with 100 representing the highest rank. The model is highly predictive of relative price movement and is effective across stocks in each capitalization category, investment style, and market sector.

StarMine's Analyst Revisions model (ARM) is a proprietary model that allows you to observe the key drivers for a stock by looking at individual revision components. For each stock, StarMine determines the most relevant estimate measures to include in ARM:

- StarMine's Preferred Earnings measure, which is EPS for most stocks
- EPS or EBITDA, depending on what was used as the Preferred Earnings measure
- Revenue, where available
- Recommendations, for all securities for which recommendations data is available



### How to Use the Analyst Revisions Model?

The model summary displays the overall percentile rank of the stocks in its region along with bar charts of how the individual components of the models have fared.

The model history would chart the stock price and the changes in the percentile score over time, showing how well analyst revisions have predicted the performance of the stock.



ANALYST REVISIONS								[-] Hide All Charts
		This Quarter	(FQ Jun-16)	This Year (	FY Sep-16)	Next Year (	FY Sep-17)	
Measure	Component Percentile	Blended Mean Change	Predicted Surprise	Blended Mean Change	Predicted Surprise	Blended Mean Change	Predicted Surprise	
- Revenue		-2.3%	-0.7%	-1.0%	0.0%	-1.4%	-0.1%	
		90 day mean changer -11.3	96	90 day mean changer -4.9		90 day mean changer -6.19		
EBITDA		-3.6%	-0.3%	-1.6%	0.2%	-2.7%	0.2%	
		90 dav mean changer -18.2	96	90 day mean change: -7.67		20 day mean changes -9.89	-	
- EPS		-4.9%	0.6%	-2.1%	0.1%	-2.5%	-0.2%	
		90 dav mean changer -22.0	96	90 day mean change: -9.0*		90 day mean change: -9.79		
		Mean Recomme	ndation Change					
Recommendations	85	-0.	5					
		90 dav mean change: -3.99						

The **analyst revision** portion displays the percentile score for each of the components of the model. As shown in the above image, you are able to display charts for all the different factors.

For each estimate measure, the model is able to display changes over the past 90 days in the mean estimate and predicted surprise for

- the current quarter
- the current year
- the next year.

Predicted surprise displays the different between the current values for mean estimate and SmartEstimate. Charts here display the movement of mean estimate and SmartEstimate over time.

The numerical scores would incorporate the percentage change in each of the 7, 14, 30, 60 and 90 day change periods.

The **recommendations** is in dark green as shown above, indicating a buy recommendation. The mean change figure of '-0.05' incorporates the change in the consensus recommendation for each of the 30,60, and 90-day change periods.



# **Earnings Quality**

#### **Overview**

StarMine research findings have determined that the market is inefficient in differentiating between sustainable and unsustainable sources of earnings. In light of these findings, StarMine has developed its Earnings Quality (EQ) model - a percentile (1-100) ranking model developed using a systematic, quantitative methodology that evaluates earnings quality according to sustainability. The EQ model assigns higher rankings to companies that are more likely to sustain their earnings.

To generate its proprietary Earnings Quality (EQ) scores, StarMine uses computer-driven models to analyze financial statements and to calculate rankings for more than 35,000 companies worldwide. Data is updated daily. These scores have proven to be reliable predictors of a company's ability to sustain high earnings over the coming quarters.

With the StarMine EQ score, you can objectively compare a company's earnings quality to that of other companies:

- The model favors companies whose earnings are backed by cash flows and other sustainable sources.
- The model penalizes stocks driven by accruals and other less sustainable sources.
- Low scores should be considered more bearish, high scores more bullish.

#### **Model Components**

The sources that StarMine's research has found to be most predictive of earnings sustainability are:

- Accruals
- Cash flow
- Operating efficiency
- Exclusions (North America only)

These sources are the components of the EQ model.





### How to Use the Earnings Quality Model?

e? ← → AAPL.O Q 🔡 Apple	Inc   Earnings (	Quality										C E	≡ _ ₽ ×
AAPL.O - APPLE INC -			m	<del>-</del> 92.0	4 c USD Vol	14,214						EARNING	S QUALITY EQ
United States   NASDAQ Global Select Consolid	ated   Compute	r Hardware	~	~									
Overview News & Research Price & Cha	arts Estimate	s Financia	s Events	Ownership	Debt & Credit	Peers &	Valuation	Derivatives	Filings	360 Menu	1		
EARNINGS QUALITY													0
MODEL SUMMARY				FINANCIAL	HIGHLIGHTS							As of A	pr 28, 2016
87 in North America (100-best) B7 Components Accruals Cash Flow Operating Efficiency Exclusions Percentile Keys Financials Posted		30 31-70 7 0	11-90 91-100	<ul> <li>The Mar-</li> <li>Unearned</li> <li>Current a</li> <li>The ratio</li> </ul>	16 10Q filing has I revenue to earn ccruals as a perc of asset to liability	been proces ad revenue entage of re accruals in	ssed. The EC increased fro venue were icreased from	Q score increa om 17% to 25 19% while re n -1.2 to 0.7.	ased from 80 %. venue grew	to 87. at-33%.			
COMPONENT DETAILS		Period E	nd: Mar-2016	MODEL CH/	ART								
	AAPL	Industry Median	Model 😰 Benchmark	- E 140-	arnings Quality 🕍 I	rice	V	1 ~~	<b>/</b> h			<b>2yr 5</b> yr 10	yr 100
EARNINGS QUALITY	87	44	50	120-	Lw	<u></u>	r m		ham	mm		- h	90
Accruals (Change as % of Avg. Assets)	59	59	45	100							home		30 70 m
Accounts Receivable	+1.1%	-2.2%	+0.1%										60 mir
Inventories	-0.1%	-0.6%	+0.1%										50 0
Other Current Assets	-2.7%	-2.7%	-0.3%	£ 60-									40 iu
PP&E		-0.4%	+1.0%										
Other Non-Current Assets		+0.3%	+0.7%										20
Associate Deveble	. 4 20/	0.0%	.0.4%										10
Accounts Payable	+1.3%	-0.6%	+0.1%	Jul		Jan 201	Ap				Jan 2010		
Other Nep Current Liabilities	+2.0%	+0.1%	+0.3%			201					2010		
Other Non-Current Liabilities	+3.170	+3.170	+0.270			Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Last s Sep-15	Cores for fiscal Dec-15	periods ended: Mar-16
Cash Flow (% of Ava Assets)	97	72	67	Earnings Q	uality	87	90	95	84	89	91	80	87
Cash From Operations	45 3%	11 1%	12.2%	Accruals	-	47	57	63	31	50	69	40	59
Capex		7.1%	5.6%	Cash Flow		98	98	98	98	98	98	98	97
				Operating E	fficiency	83	83	90	87	89	91	84	80
Operating Efficiency	80	54	60	Exclusions		50	50	50	50	50	50	50	50
Operating Profit Margin	29.4%	6.5%	8.6%	Note: On the ch	nart, score changes	associated wi	ith the posting (	of new financia	l statements o	ccur after the p	period ends due	e to the lag betw	ween period
Net Operating Asset Turnover		2.04	1.63	end date	s and posting dates.								
△ Net Operating Asset Turnover		-0.15	-0.02										
Exclusions (% of Avg. Assets)	50	16	50										

The **Model summary** displays the overall percentile score for the company relative to its region, and graphs the individual component scores that go into the overall score. Financials Posted indicates how recently the company filed its latest financial figures.

The **Financial Highlights** displays highlights from recent financial results, providing a quick summary of what is really going on in the fundamentals of the company.

**Component Details** displays a breakdown of each component. Values in green have a positive effect on the component score, while values in red have a negative effect.

**Earnings Quality History** has two different components. The chart in displays history for 2, 5, or 10 years (if available). It also shows stock price history. Roll over a point on the chart to see data for that date.

The table below the chart gives detailed scores for previous fiscal periods. These periods correspond to quarterly, semiannual or annual data, depending on the frequency of financial reporting by the company.

The table displays a maximum of eight columns of data, or up to five full years of history. For example, a company that reports financial results each quarter would have eight columns of quarterly data, while a company that reports only annual results would have five columns of annual data.



### **Relative Valuation**

#### **Overview**

StarMine Relative Valuation is a percentile (1-100) ranking of stocks based on price and enterprise value multiples

There are a few benefits to using this model:

- Compare 12-month forward or 12-month trailing multiples for the focus company with average multiples for peers
- Customize the list of company peers
- Compare the focus company's current and historical multiples in table and chart form
- Quickly see which metrics show a significant premium or discount, thanks to color-coding
- Select a metric to create a price target in Price Target Builder
- View the company's score in its region, country, and sector, using the StarMine Relative Valuation Model
- Analyze earnings per share (EPS) and revenue growth metrics for the company and its peer

#### **Valuation Metrics**

Relative Valuation displays a wide range of valuation metrics for a focus company and its peers, including:

- Market capitalization
- Net debt (or cash)
- Enterprise value (EV)
- Price multiples (P/E, P/Cash Flow, P/Sales, P/Book, EV/EBITDA or EV/Sales)

One good thing to note is that there are two different Relative Valuation tools available on Eikon. While one provides a snapshot view of the relative valuation available (Relative Valuation Model), the other provides a more thorough explanation of relative valuation calculated for the particular company.



#### Below is the Relative Valuation Model.



### How to Use the Relative Valuation Tool?

AAPL.O Q 💽 Apple Inc   Relation	ve Valuation					C -€ ≡ _ ₫
Home Asset Classes 🔻 Countries 🔻 News and Rese	earch ▼ My Eikon ▼ Reuters Insider Tra	ading 🔻 Financial Institutions	-		Updated 29	I-Jun-2016 10:13 Refresh i
Apple Inc 🔻 - 🗄 AAPL.O Last 93.59	9 <b>c</b> usp <b>△ +1.55 1.68%</b> ci	ose: <b>93.59 Buy</b>				
Overview Price Research News Debt Value	ation 360 Menu					
RELATIVE VALUATION						•
	Final Vers D	ation (with OwnedCalimates				
Market Valuation		auos (with smartestimates	) D(( D()		5/4	D/4 D/2
Market Cap USD 512,652 Net Debt USD 24 58	2 MM	FYU Sep 2015	FY1 FY2 Sep 2016 Sep 2017		FYU Sep 2015	FY1 FY2 Sep 2016 Sep 2017
Enterprise Value USD 537,22	1 MM P/E	▼ 10.2	11.3 10.4	P/Sales	▼ 2.2	2.4 2.3
- PEER COMPARISON			View Forw	vard Valuation (Next Twe	ive Month) 🔹 Show	w Peer Median 🔹
Name	FV/Sales	EV/EBITDA	P/F	Price/Cash Flow	Price/Book	Dividend Yield
	NTM	NTM	NTM	NTM	NTM	NTM
AAPL.0 - APPLE INC	1.6	4.7	10.4	7.5	3.6	2.5%
Peer Median (Edit Peers)	2.2	7.9	11.2	8.8	2.0	3.8%
Premium/Discount to Peers	-27.4%	-40.2%	-6.8%	-14.9%	+79.1%	-35.0%
Computer Hardware						
Technology Equipment						
- HISTORICAL COMPARISON					HISTORICAL F	Range 10 Years V
Name	EV/Sales NTM	EV/EBITDA NTM	P/E NTM	Price/Cash Flow NTM	Price/Book NTM	Dividend Yield NTM
AAPL.0 - APPLE INC	1.6	4.7	10.4	7.5	3.6	2.5%
AAPL.O - APPLE INC AAPL.O - 10 Year Median	1.6 2.7	4.7 9.0	10.4	7.5 10.3	3.6 4.2	2.5%

One good thing to note is that when doing Peer Comparison, you are able to customise the peer group you are interested in. Clicking on the blue "Edit Peers" would redirect you to the following page for you to edit the list to your liking.

°°.	+ →	AAPL.O C	🔉 🔢 Apple Inc   Peer Analysis							C = _ ø ×	
AA Unite	APL.O  APPLE INC  PEER ANALYSIS PEERS Nited States I NASDAQ Global Select Consolidated I Computer Hardware										
Ov	erview	News & Research	Price & Charts Estimates F	inancials Events	Ownership Deb	t & Credit Peers &	Valuation Derivative	es Filings 360 Me	inu		
F	PEER ANALYSIS FOR APPLE INC (AAPL.O)										
	orward \	Valuation	✓ H ▼ Add Column	∷≣ Add Ran	k Edit Peers				¢	🕑 v 🕅 v 🖅 v	
	Identif	ier	Company Name	EV / Revenue (SmartEstimate ®) (NTM, Consolidated)	EV / EBITDA (SmartEstimate ਃ) (NTM, Consolidated)	Price / EPS (SmartEstimate ®) (NTM, Consolidated)	Price / Cash Flow Per Share (SmartEstimate ®) (ntm, Consolidated)	Price / Book Value Per Share (SmartEstimate ®) (ntm, Consolidated)	Price / Sales Ratio - SmartEstimate® (NTM, Consolidated)	Dividend Per Share Yie % (SmartEstimate®) (NTM, Consolidated)	
			Apple Inc	2.41	7.27	10.59	7.59	3.66	2.3%		
			HP Inc	0.49	5.38	7.25	6.74		0.5%		
			International Business Machines Corp	2.15	8.64	10.59	8.91	7.97	1.8%		
			Cisco Systems Inc	2.08	6.26	11.41	10.01	2.07			
			Motorola Solutions Inc	2.33	8.64	13.31	8.58		2.2%		
			Microsoft Corp	3.47	9.15	17.14	12.39	5.01			
			Samsung Electronics Co Ltd	0.80	3.23	9.48	4.96	1.09			
			Nokia Corp	0.86	6.92	17.62	17.98	1.44	0.8%		
	Add s	Security									
										$\rightarrow$	





In the above chart, you able to specify which company or industry you would like to compare against, as well as the ratio preferred. Below the chart is the snapshot of the summary and history, a similar set up of all StarMine models

GROWTH											
										Show Peer	Median
AKNINGS PER SHARI											
vame		5-year Historical	Last Ye	ar ⇔ This Year		This Year   → Nex	t Year	Growth	Growth	NTM	Growth Mean
		Growth	Last Year	Growth	This Year	Growth	Next Year				
AAPL.O - APPLE INC		15.6%		-10.4%		9.3%	9.03	-24.5%	3.7%	2.84	9.2%
- Peer Median (E		2.8%				5.0%		-2.8%	6.7%	2.07	9.4%
HPQ.N	HP INC	-16.0%		N/A		0.9%	1.63	-49.3%	N/A	N/A	N/A
IBM.N	INT'L BUSINESS MACHS	2.5%		-9.4%		3.7%		-24.6%	-3.3%		2.6%
CSCO.OQ	CISCO SYSTEMS, INC.	6.6%		5.6%		5.0%	2.45	2.0%	5.1%	2.24	
MSI.N	MOTOROLA SOLUTIONS	2.8%	3.33	36.6%		10.5%	5.03	27.5%	21.8%	0.61	10.4%
MSFT.OQ	MICROSOFT CORP	0.0%		8.4%		8.3%	2.89	-2.8%	8.3%		8.5%
o05930.KS	SAMSUNG ELECTRONIC	6.1%	126,303.00	13.8%		5.0%	150,877.63	-0.5%	9.2%	N/A	11.9%
MOKIA.HE		4.1%		-43.7%		67.4%	0.34	-58.8%	-4.6%		8.3%
EVENUE											
Name		5-Year	Last Ye	ar ⇔ This Year		This Year ⇔ Nex	t Year	This Qtr, YoY	NTM/LTM		
		Historical Growth	Last Year	Growth	This Year	Growth	Next Year	Growth	Growth		
AAPL.O - APPLE INC		29.1%		-7.5%		4.5%	225,988	-15.2%	1.2%		
- Peer Median (E		-3.9%		1.5%		2.6%		0.2%	3.6%		
MPQ.N	HP INC	-3.9%		N/A		-3.4%		-55.1%	N/A		
IBM.N	INT'L BUSINESS MACHS	-3.9%		-2.8%		-0.4%		-3.4%	-1.7%		
CSCO.OQ	CISCO SYSTEMS, INC.	4.2%		0.0%		2.6%	50,451	-2.0%	2.4%		
MSI.N	MOTOROLA SOLUTIONS	-5.6%	5,695	5.4%		2.6%	6,157	2.3%	4.0%		
MSFT.OQ	MICROSOFT CORP	8.4%		-2.1%		3.9%	95,197	0.2%	3.9%		
005930.KS	SAMSUNG ELECTRONIC	5.3%	200,653	3.1%		3.7%	214,433	6.6%	3.4%		
		-21 7%	12.574	92.2%	24.976	1.6%	25 292	97.9%	21.2%		

The growth portion provides you an overview of the different companies and their EPS/Revenue for the this year, last year and the growth as well as an estimate for the next year and a 5 year historical growth figure.



## Intrinsic Valuation Model

#### **Overview**

Intrinsic Valuation is based upon a dividend discount model that uses forecasts about the company's earnings, combined with proprietary adjustments to project future dividends. These dividend flows are then discounted back to the present time to arrive at an intrinsic value for the stock. The same model, when plugging in the current stock price, is also used to derive market-implied EPS growth rates.

Intrinsic Valuation uses StarMine SmartEstimates when available. SmartEstimates helps you better predict future earnings and analyst revisions. Compared to consensus estimates, SmartEstimates places more weight on recent forecasts by top-rated analysts. The model uses SmartEstimates and analyst long-term growth rates for earnings projections.

#### Projected DPS Calculation:

Type of Company	Calculation Method for Projected DPS
Companies that pay dividends currently	The payout ratio (DPS as a percentage of EPS) is determined in three key periods:
	implied payout ratio. This value uses DPS estimates when available. For North America, an estimate provided by analysts at Thomson Reuters called implied annual dividend (IAD) is used. This value is an annualized representation of the most recently-announced dividend policy, excluding special dividends. Outside North America, SmartEstimates for dividends are used.
	Year 5 - Starting with the DPS estimate used in FY1 and adjusting for past dividend momentum and estimates of long-term growth for EPS (LTG), the model provides an estimate for FY5 dividends.
	Steady State - The steady state payout rate reflects the average payout rate for mature companies.
Companies that do	An assumption is made that this policy will persist through FY5. A payout rate
not currently pay	in FY10 is then forecast as a function of long-term growth (LTG), a relationship
aividends	Identified by Starmine Research in the empirical data.
Companies with the	The dividend payout ratio is set to reflect the legislated requirement (for
assignment	the payout ratio is based on the implied dividend and earnings projections
associated with REITs	



#### Calculation Formulae

EPS = Revenue x Net Margin / Shares Outstanding

When you enter custom projections, the following values are recalculated:

Custom Revenue Revenue	YoY Growth(x) changes to (Revenue(x) - Revenue(x-1))/Revenue(x-1) for current and next period
	EPS(x) changes to Revenue(x) * Net Margin(x) / Shares Outstanding(x)
	EPS YoY Growth changes to $(EPS(x) - EPS(x-1))/EPS(x-1)$ using the new $EPS(x)$ for current and next period
Custom Revenue YoY Growth	Revenue(x) changes to Revenue(x-1) * (1+ Revenue YoY Growth(x)) for current and all future periods
	EPS(x) changes to Revenue(x) * Net Margin(x) / Shares Outstanding(x) using the new Revenue(x) for current and all future periods
	EPS YoY Growth changes to $(EPS(x) - EPS(x-1))/EPS(x-1)$ using the new $EPS(x)$ for current and all future periods
Custom Net Margin	EPS(x) changes to Revenue(x) * Net Margin(x) / Shares Outstanding(x)
	EPS YoY Growth changes to $(EPS(x) - EPS(x-1))/EPS(x-1)$ using the new $EPS(x)$ for current and next period
Custom Shares Outstanding YoY Growth (FY1)	Shares Outstanding YoY Growth(x) = Shares Outstanding YoY Growth(FY1) - [Shares Outstanding YoY Growth(FY1) / (Years to Steady State-1)]*(x-1) for all future periods
	Shares Outstanding(FY1) = Shares Outstanding(FY0) * (1 + Shares Outstanding YoY Growth(FY1) ) for current and all future periods
	EPS(x) changes to Revenue(x) * Net Margin(x) / Shares Outstanding(x), for current and all future periods
	EPS YoY Growth changes to $(EPS(x) - EPS(x-1))/EPS(x-1)$ using the new $EPS(x)$ for current and all future periods
Custom EPS	EPS YoY Growth changes to (EPS(x) - EPS(x-1))/EPS(x-1) using the new EPS(x) for current and next period
	Net Margin(x) changes to (Shares Outstanding(x) * EPS(x) )/Revenue(x)
Custom EPS YoY Growth	EPS(x) changes to EPS YoY Growth(x) * EPS(x-1) for current and all future periods
	Net Margin(x) changes to (Shares Outstanding(x) * EPS(x) )/Revenue(x) for all periods x and after



### How to Use the Intrinsic Valuation Model?

ේ ← → 🛛 AAPL.O 🔍 🛄 Apple Inc I Intrinsic V	aluation	C = _ @ ×
AAPL.O  APPLE INC  United States I NASDAQ Global Select Consolidated I Compute	•r Hardware	214 INTRINSIC VALUATION IV
Overview News & Research Price & Charts Estimate	s Financials Events Ownership Debt & Credit Pe	ers & Valuation Derivatives Filings 360 Menu
INTRINSIC VALUATION		٠
VALUE(USD)	FORWARD 5-YEAR EPS GROWTH	HISTORICAL IV
StarMine Projection 141.46	StarMine Projection 3.8 %	- Intrinsic Value (StarMine Projections) 🖬 Price 1yr 2yr 5yr 10yr
Apple Inc - Last Close 92.04		200
PRICE / INTRINSIC VALUE	Computers, Phones & Household Electronics - 1.8 %	9 160 9 120 8 80
StarMine Projection 0.65	TRAILING 5-YEAR EPS GROWTH (CAGR)	40
Household Electronics 0.82	Apple Inc - Actual 33.6 %	0 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016
Technology 1.03	Peer Median 3.5 % 🔵	MARKET-IMPLIED F5Y EPS CAGR 1vr. 2vr. 5vr. 10vr
North America 0.93		35%
MODEL SCORES	FORWARD GROWTH VS TRAILING GROWTH V Apple Inc Peers Bubble Size = Price/IV	25% 25% 15%
<ul> <li>80 in North America</li> <li>80 in United States</li> <li>87 in Technology</li> <li>75 Phones &amp; Household Electronics</li> </ul>	414 414 414 414 414 414 414 414	S% 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 EPS GROWTH ▼ EPS GROWTH ▼ EPS GROWTH ▼ CUSDDD 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 TOT% TOT% 0%
PROJECTIONS Add user projection		

The **value** portion displays the prior day's closing price of a stock and its projected value whiles the **price/intrinsic value** displays a stock comparison within its industry, sector, and region.

**Forward 5-year EPS Growth** compares the projected growth calculated by StarMine to the industry and to the market-implied growth.

**Forward Growth VS** displays a diagram of the forward growth compared to the trailing growth or forward P/E for the company and its peers. Bubbles in the chart area in white indicate that, for the companies in question:

- Forward growth is greater than trailing growth, which signals a company with accelerating growth, for a trailing growth chart
- The PEG ratio is less than 1

Market Implied F5Y EPS CAGR plots the historical value of market expectations for the EPS growth for the company over the chosen period.

EPS Growth plots historical and projected EPS and YOY growth rates.

**Historical and Implied Future ROE** plots five years of historical ROE and ROA (when available), and annual figures for future implied ROE for ten years followed by five-year increments out to FY15.

The Trailing 5-year EPS Growth compares company trailing growth to that of its peers.



### Value Momentum

#### **Overview**

StarMine's Value-Momentum (Val-Mo) model can be used in a stock ranking or screening system, as an input into a quantitative multi-factor investment model, or for reference in a non-quantitative strategy.

The Value-Momentum model is a percentile (1-100) ranking of stocks based on recent valuation and momentum characteristics. These characteristics are described in Combining value and momentum signals.

The model uniquely captures the signals given by valuation and momentum characteristics by combining four of StarMine's stock selection models:

- Intrinsic Valuation Model and Relative Valuation Model for value characteristics
- Analyst Revisions Model and Price Momentum Model for momentum characteristics

The combination of global ranks on each of these four input models results in the overall model score for a security. The overall score is generated in two steps:

StarMine includes only non-micro-cap stocks (as defined by the top 98.5% of market cap in each region) in the "first-pass" ranking to ensure that illiquid micro-cap stocks do not influence the score of any securities.

This roughly corresponds to the top 3,000 in North America, top 1,500 in Developed Europe, top 600 in Developed Asia ex-Japan, top 1,500 in Japan, and top 2,500 in Emerging Markets.

2 Micro-cap stocks are then positioned in the "second-pass" such that the original ordering of securities is preserved. Thus, the score is uniformly distributed over the set of all non-micro-cap securities. However, the distribution is allowed to be non-uniform when micro-caps are included.

#### How to Use the Value Momentum Model?



The **model summary** displays the component scores display the rankings of the company derived from the Relative Valuation (StarMine RV), Intrinsic Valuation (StarMine IV), Analyst Revisions (StarMine ARM), and Price Momentum (StarMine Price Mo) component models. Component scores are then aggregated to form the overall company score, indicative of the company's ranking compared to other companies in the same region and country.

The model history charts the stock price and changes in the stock's percentile score over time.



COMPONENT DETAILS			
VALLE	77	MOMENTUM	22
VALUE	11	MOMENTUM	23
	80		31
Price/IV	0.65	Revenue	
Market Implied 5Y CAGR	-4.0 %	EBITDA	
		EPS	
	73	Recommendations	85
EV/Sales	51		
EV/EBITDA			11
P/E		Long Term	
Price/Cash Flow	76	Mid Term	
Price/Book		Short Term	79
Dividend Yield	59	Industry	22

The **component details** display a breakdown of the component models that drive the ranking results.

PEER COMPARISON							rs PEER VALUE/MOMENTUM
DIO.		V/-1 M-		Value	Mom	entum	100
RIC	Company Name	vai-wo			ARM	Price Mo	90
	Apple	40	73	80	31	11	80
	HP	93	95	N/A	56	33	70
	IBM				54	46	a 👷 -
	Cisco Systems	92				55	2 SO 10 SO 1
	Motorola	47	58	53	34	68	
	Microsoft	43	47			74	20
	Samsung Elec	97		66	97	88	
	Nokia Corp			43			
Peer Avg.		62				50	0 10 20 30 40 <u>50</u> 60 70 80 90 100

The **peer comparison** displays model scores and component rankings for peer companies. The default list of peers is based on competitor lists provided in filings, analyst cross coverage, business classification, and revenue proximity. This hierarchical approach produces very reasonable sets of peer companies for most securities.

**Peer Value/Momentum** plots the average ranking of the focus stock and its peers. It provides a visual cue indicating if stocks have a bullish or bearish outlook:

- Green area bullish outlook
- Grey area lack of advantage
- Red area bearish outlook



# Credit Risk - Combined Model

#### **Overview**

The Credit Risk Combined Model is a proprietary corporate credit risk model suite that includes models assessing a company's default risk through both the accounting ratio analysis and the contingent claims analysis. In addition, StarMine's credit risk model suite includes a novel third approach that applies cutting-edge machine learning algorithms to mining textual data for information regarding a company's financial health.

Structural Model	The StarMine Structural Credit Risk Model (StarMine SCR) evaluates credit risk from the equity market's view via StarMine's proprietary extension of the Merton structural default prediction framework that models a company's equity as a call option on its assets.
SmartRatios Model	The StarMine SmartRatios Credit Risk Model (StarMine SRCR) utilizes financial ratio analysis for credit risk assessment and incorporates both reported information and forward-looking estimates via the StarMine SmartEstimate.
Text Mining Model	The StarMine Text Mining Credit Risk Model (StarMine TMCR) mines the language in textual data from multiple sources (Reuters News, StreetEvents conference call transcripts, corporate filings, and select broker research reports) to evaluate companies' potential financial distress.

The combination of these three models generates a single, final estimate of public company credit risk that is more accurate than using any one data source alone.

### How to Use the Combined Credit Risk Model?



The **Model Summary** provides component scores that display the credit quality rankings of the company derived from the Structural, Text Mining, and SmartRatios models respectively. Component scores are then aggregated to form the total company score, indicative of:

- The company's ranking compared to other companies in the same region
- The relative probability of the company to default on its credit obligations.

A high score indicates a lower credit risk. The Implied rating is based on the default probability derived from the component models.



The **credit ratings** portion displays Standard & Poor's and Moody's Foreign Issuer Long Term Rating. The above illustration shows a stock rated: A+ by the model AA+ by S&P no rating available from Moody's.

STRUCTURAL MODEL 65 TEXT MINING MODEL	L 70
Structural Leverage 49 Transcripts	
Asset Volatility 72 Reuters News	
Asset Drift 26 Filings	70
SMARTRATIOS MODEL 86 Research	54
Profitability 85	
Leverage 83	
Coverage 77	
Liquidity 60	
Growth & Stability 59	

The **Component Details** displays a breakdown of the component models that drive the ranking and rating results. The weight given to each component model is based on the volume of text on a given company. Hence, the weight of the Credit Risk - Text Mining Model increases with increasing text volume.



The **Peer Comparison** displays credit quality ratings for the top peer companies. The default list of peers is based on competitor lists provided in filings, analyst cross coverage, business classification, and revenue proximity. This hierarchical approach produces very reasonable sets of peer companies for most securities.

The **Peer Credit Ratings** plots the average rating of the focus stock and its peers. The unit line joining the same rating pairs on both axes provides a visual cue indicating if stocks have a bullish or bearish outlook:

- Stocks above the line, in the green area, have a bullish outlook
- Stocks on the line indicate that the model and agency ratings are identical, signalling a lack of advantage
- Stocks below the line, in the pink area, indicate a lower model rating compared to the agency rating, signalling a bearish outlook



# 7. Equity Derivatives

There are four main equity derivatives which are mainly traded

- 1. Equity Options
- 2. Equity Warrants
- 3. Index Options
- 4. Index Futures

### **Equity Index Futures**

Equity Index Futures are futures contracts whose value is dependent on the level of na underlying stock index, such as the FTSE 100 or the S&P500.

Similar to commodity futures, the different futures contracts each have a continuation RIC.

Continuation RICs are constructed by using a lower case "c" and a number which denotes whether it is the first month or second or third in the series.

e.g. FFI (FTSE100 Future root) c (continuation) 1 (first month) = FFIc1

In order to monitor different equity index price movements, a page could be set up as shown below, with a monitor, news, quotes and charts. By linking the pages together, you are able to quickly monitor different chain contracts as per your need.





### Index Futures Fair Value Calculator <IFFV>

An application that may come in useful is the Index Futures Fair Value Calculator **<IFFV>**. The FV calculator adopts the FV assumption where it is believed that futures contracts should be priced given such things as current index level, index dividends, and days to expiration and interest rate. This excludes short term supply and demand fluctuations.

Here, Fair Value = Cash Price x (1 + DaystoDelivery x (Fund Rate - Div Yield) x 100)/CcyYearBasis

Index Futures Fair Value	PX	Q					₀2-€	≡ _	o ×
Index Mover [IMO]   Blended Orde	r Book [BOB]	Option Wate	h [OPW]				R	elated Code:	: IFFV
							Setting	s 😗	
S&P 500 Index						ı	Indated at 5	:12:14 PM	
Contract: SP				Trade Date:	29 Jun 201	6			
- Calculation Parameters									
Dividend Vield: Eurod Bat				Cash	Index Price:	Latest			
			Risk-Free	Rate Interpo	lation Mode:	Natural Cubio	: Spline 🔽		
Historical     Zero C	Curve			Int	ernolate on:	Discount Fac	tors 🔻		
_ 3M De	posit Rate:	0.970		2110			apolation		
							poladon		
Dividend Yield Schedule									
Main 70 Curve									
Cash Index USD									
Latest Net Change	% Change	Open	Hig	h	Low	C	ose		
2,036.09 35.55	1.78	2,006.67	2,0	036.09	2,006.67	2,000.54	27 Jun	2016	
Index Futures USD	IOM								
Contracts Latest T Fund R	ate Div Yield	Fair Value	Basis	Spot-FV Spread	Calendar Spread	Premium	Implied Yield	Implied Rate	
Sep 16 2,037.50 0.	607 2.614	2,027.28					0.284	2.978	
Dec 16 2,019.80 0.	629 2.614	2,017.38					2.356	0.889	
Mar 17 <b>2,012.40 0</b> .	649 2.614	2,007.64					2.283	0.982	
Jun 17 <b>2,007.10</b> 0.	667 2.614	1,998.18					2.152	1.133	
Sep 17 2,005.10 0.	687 2.614	1,988.95					1.948	1.360	
Dec 17 2,004.30 0.	707 2.614	1,979.99					1.780	1.550	
Mar 18 2,010.20 0.	729 2.614	1,971.34					1.4/4	2 134	
Dec 18 2011 10 0	797 2.614	1 946 23					1,252	2,134	
Dec 19 2.034.20 0	856 2.614	1.915.12		120.97		119.08	0.879	2.621	
Dec 20 2.057.30 0.	948 2.614	1,889.95					0.713	2.887	

- 1. In the Eikon Toolbar, search <IFFV>
- 2. Enter/Search the Cash Index Code (e.g. <.STI>)
- 3. Choose a Contract Root

**Column Description** 

- Dividend Yields: widely used to measure the income return of a share
- Calendar Spread: different between current price of a future and price of its nearest term contract
- Basis: Futures contract price index price
- Premium: futures price fair value
- Implied Rate: difference between spot rate and the futures rate (+ve: higher future borrowing rate)
- Implied yield: anticipated yield from a futures contract based on the current spot rate.



# 8. Equity Applications

### Advanced Events Search <ADVEV>

One page which would be useful for investors to look at is the Advanced Events Search <ADVEV> application. Using this application, users can view future events, such as

- 1. Earnings and Corporate
- 2. Dividends
- 3. Institutional
- 4. Conference
- 5. General
- 6. Transactions
- 7. Corporate Actions (CorAx)
- 8. Economic

	ts Searc	:h							C ≡	- 5	×
FILTERS		÷	EVENTS <table-cell></table-cell>					🗭 Tell us v	vhat you think		
SAVED SEARCHES	₩~		III  🗸					🥖 Grou	p By: None	~	٥
Keyword					Event Type		Event Name				
			29-Jul-2016	04:30	Earnings Conference Call	GOOGL.OQ	Q2 2016 Alphabet Inc Earnings Call				
Event Name only			28-Jul-2016	NTS	Earnings Release	GOOGL.OQ	Q2 2016 Alphabet Inc Earnings Release				
Sort by relevance			28-Jul-2016	I NTS	Earnings Release		Q2 2016 Samsung Electronics Co Ltd Earnings Release				
Events Date			27-Jul-2016	05:00	Earnings Conference Call	AAPL.OQ	Q3 2016 Apple Inc Earnings Call				
Next 30 Days	$\sim$		27-Jul-2016	AMC	Earnings Release		Q3 2016 Apple Inc Earnings Release				
Cast/Cassala Dis.			20-Jul-2016	05:30	Earnings Conference Call		Q4 2016 Microsoft Corp Earnings Call				
Default (All Events)	~		20-Jul-2016	AMC	Earnings Release		Q4 2016 Microsoft Corp Earnings Release				
			07-Jul-2016	NTS	Trading Statement Release		Q2 2016 Samsung Electronics Co Ltd Trading Updtae				
Event Type	_		30-Jun-2016	NTS	Regular Dividends		0593xq.L Interim Cash Dividend of gross going ex on Jur				
Event Types	$\sim$		30-Jun-2016	NTS	Regular Dividends		0593q.L Interim Cash Dividend of gross going ex on Jun	2			
RIC/Company/Portfolio/List			30-Jun-2016	NTS	Regular Dividends		SMSN.BA Interim Cash Dividend of gross going ex on Jur				
AAPL.O and 3 more											
Industry											
Industries	$\sim$										
Country											
Countries	$\sim$										
Contrast Turns											
	~										
Last Update: Jun 30 2016 10:3											
Search Re	eset										

- 1. In the Eikon Toolbar, search <ADVEV>
- 2. Define the Events Date (Up to the Next 30 Days), Event Type
- 3. Search a list of RICs or Companies that you are interested in looking for .
- 4. If any, define the industries and countires as well as the specific content type you are interested in.

Note: If you see this **1**, it implies that a transcript is to be expected. A green sign indicates a live delivery, grey indicates an intraday delivery and light blue indicates near-live delivery.





### Total Return <TRTR>

In order measure the total return from holding an equity, Eikon has a total return calculator <TRTR> which allows users to measure the price return as well as the total return during both the holding period and the annual period.



- 1. In the Eikon toolbar, search <TRTR> to open the application
- Search for the different RICs that you would like to use. (e.g. AAPL.O for Apple)
   If you do not know the RIC, you are also able to search for the company and select from the auto
   suggest
- 3. Below the table of figures would be chart area. From the chart area, you are able to choose either a return of a single stock or to do a return comparison.
- 4. Located at the bottom of the page is a P&L analysis which helps you to calculate the amount of profit or loss you are likely to make if you invest in this stock, after factoring in your dividend reinvestment profit.



## Blended Order Book <BOB>

The blended order book brings together market data on buying and selling interests in financial instruments. It displays market data gathered from exchanges and venues, market makers and trade reporting venues.

The main purpose of this app is to display unified liquidity. You are able to set a single currency to display data from multiple venues, selecting the venue display, plot a liquidity pie chart etc.

ං	DBSM.SI Blended Order Book	₹Q ∨	DBSM.S		Q								<mark>0</mark> B	0 <del>-</del> P/V	E] <b>→</b> 0/A	<b>.</b> € ∶	= -	. в ×
DBS	M.SI LS 15.82 Net +0	.29 %·	+1.87 V	ol <b>7.7</b> 4	M LSVa	1 <b>400</b> Op	16.04 TOv	r <b>123.05</b> M	Lo 15.54	Hi16.04	DBS	GRP HL	DGS					
			Venue	Count	AccSize	Size	Bid	Ask	Size	AccSize	Count	Venue						
			SES	1	61,400	61,400	15.810	15.820	116,100	116,100	1	SES						
			SES		140,000	78,600	15.800	15.830	103,300	219,400		SES						
					180,600	40,600	15.790	15.840	221,100	440,500								
			SES		205,000	5,400	15.770	15.860	37,500	618,100		SES						
			SES		214,300	9,300	15.760	15.870	19,700	637,800		SES						
			SES		238,500	24,200	15.750	15.880	27,800	665,600		SES						
			SES		247,900	9,400	15.730	15.890	8,200	673,800		SES						
			SES		248,000	100	15.720	15.900	87,000	760,800		SES						
			SES		250,500	2,500	15.710	15.910	3,100	763,900		SES						
			SES		268,800	18,300	15.700	15.920	13,900	777,800		SES						
			SES		269,300	500	15.660	15.930	5,000	782,800		SES						
			SES		282,400	13,100	15.650	15.940	5,100	787,900		SES						
			SES		282,500	100	15.630	15.950	113,600	901,500		SES						
			SES		283,400	900	15.620	15.960	6,300	907,800		SES						
			SES		291,000	7,600	15.610	15.970	9,100	916,900		SES						
			SES		318,200	27,200	15.600	15.980	43,600	960,500		SES						
			SES		318,800	600	15.590	15.990	80,400	1,040,900		SES						
			SES		321,800	3,000	15.580	16.000	316,300	1,357,200		SES						
			SES		327,300	5,500	15.550	16.010	51,100	1,408,300		SES						
						327,300	15.751	15.911	1,408,300									
						327,300	100.000%	100.000%	1,408,300									

- 1. In the Eikon toolbar, search **<BOB>** in order to open the application
- 2. In the search bar within the app, search for the RIC or the company you are interested in. A list as shown above would be generated.
- 3. For stocks that trade in more than one exchange, click the **WO** sign at the top of the page in order to generate a pie chart or bar chart to represent how much of that stock was traded in each exchange.

The left side of the table represents the demand amount while the right side represents the supply. Hence the total number of shares in the market to be bought and sold at each price level is provided. Thus, the summation at the bottom of the page would signal whether or not there is more buying or selling,

More buy orders than sell orders would imply that the price will strengthen since price tends to strengthen with more buying demands and vice versa.

Prices on this page are listed from the highest bid (highest price you can sell) and the lowest ask (the cheapest you can buy).



# Time and Sales Application <TAS>

The times and sales application (TAS) will display real time "Times and Sales" as well as Volume Weighted Average Prices (VWAPs) which would act as a benchmark for traders.

The TAS includes details of individual trade; the trade price, bid and ask spread at the time of the trade and the volume of trade etc.

Note that data here can be viewed on a blended mode, which implies that results from different exchanges and venues can all be displayed on a single page.

There are two ways to obtain TAS and VWAP information.

Firstly, using the <TAS> application in Eikon.

් 🕐 DBSM.SI Time & Sa	les 🔻 Q 🗸	DBSM.SI	Q									"Ƴ-€ ≡ _ ☞ ×
Current Session 🔻 30/ 6/2016	▼ 08 : 59	9:00 - 17	: 06 : 00	30/6/2016 👻	1							
R Turde Lee (R. 11)				. )@	• 					(a) D al		
Volume at Price	e M Calc VW	AP 📈 Volume	Volume at Pr	ice 🛛 📈 Money	Flow    💷 Lift(	Ask) Hit(Bid) Log	Lift(Ask) Hit(E	lid) Chart Style 1	📈 Lift(Ask) Hit	(Bid) Chart Styl	e 2	
Timestamp					Bid Size	Best Ask					Trade Flags	🖉 🛁
30/6/2016 11:17:47.237	<u> </u>	15.81	700	15.810	23,600	15.820	110,500	11,067	15.8188	380,707	Normal Price	
30/6/2016 11:17:26.645	<b>15.810</b>	15.81	300	15.810	13,600	15.820	113,000	4,743	15.8188	369,640	Normal Price	
30/6/2016 11:17:16.284	15.810	15.81	4,200	15.810	14,500	15.820	112,100	66,402	15.8188	364,897	Normal Price	
30/6/2016 11:17:01.735	15.810	15.81	4,300	15.800	12,600	15.810	58,200	67,983	15.8188	298,495	Normal Price	
30/6/2016 11:17:01.735	<b>15.810</b>	15.81	3,200	15.800	12,600	15.810	58,200	50,592	15.8188	230,512	Normal Price	
30/6/2016 11:17:01.735	15.810	15.81	14,500	15.800	12,600	15.810	58,200	229,245	15.8188	179,920	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	100	15.800	12,600	15.810	58,200	1,581	15.8189	-49,325	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	3,000	15.800	12,600	15.810	58,200	47,430	15.8189	-50,906	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	200	15.800	12,600	15.810	58,200	3,162	15.8189	-98,336	Normal Price	
30/6/2016 11:17:01.733	<b>15.810</b>	15.81	900	15.800	12,600	15.810	58,200	14,229	15.8189	-101,498	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	100	15.800	12,600	15.810	58,200	1,581	15.8189	-115,727	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	100	15.800	12,600	15.810	58,200	1,581	15.8189	-117,308	Normal Price	
30/6/2016 11:17:01.733	<b>û</b> 15.810	15.81	10,000	15.800	12,600	15.810	58,200	158,100	15.8189	-118,889	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	3,000	15.800	12,600	15.810	58,200	47,430	15.8189	-276,989	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	2,300	15.800	12,600	15.810	58,200	36,363	15.8189	-324,419	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	2,000	15.800	12,600	15.810	58,200	31,620	15.8189	-360,782	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	8,300	15.800	12,600	15.810	58,200	131,223	15.8189	-392,402	Normal Price	
30/6/2016 11:17:01.733	15.810	15.81	6,200	15.800	12,600	15.810	58,200	98,022	15.8189	-523,625	Normal Price	
30/6/2016 11:17:00.325	15.800	15.8	4,700	15.800	16,400	15.810	53,900	74,260	15.8189	-621,647	Normal Price	
30/6/2016 11:16:55.713	15.800	15.8	1,000	15.800	16,400	15.810	51,400	15,800	15.819	-547,387	Normal Price	
30/6/2016 11:16:48.973	<b>15.800</b>	15.8	700	15.800	16,100	15.810	37,000	11,060	15.819	-531,587	Normal Price	
30/6/2016 11:16:47.833	15.810	15.81	6,800	15.800	16,000	15.810	53,600	107,508	15.819	-520,527	Normal Price	
30/6/2016 11:16:46.685	15.800	15.8	700	15.800	16,700	15.810	58,200	11,060	15.819	-628,035	Normal Price	
30/6/2016 11:16:46.424	15.800	15.8	200	15.800	13,600	15.810	64,300	3,160	15.819	-639,095	Normal Price	
30/6/2016 11:16:46.404	15.800	15.8	400	15.800	14,000	15.810	67,800	6,320	15.819	-642,255	Normal Price	
30/6/2016 11:16:46.395	15.800	15.8	200	15.800	14,200	15.810	67,800	3,160	15.819	-648,575	Normal Price	
30/6/2016 11:16:46.385	15.800	15.8	100	15.800	14,300	15.810	66,600	1,580	15.819	-651,735	Normal Price	
30/6/2016 11:16:46.385	15.800	15.8	300	15.800	14,600	15.810	66,400	4,740	15.819	-653,315	Normal Price	
30/6/2016 11:16:46.385	15.800	15.8	200	15.800	14,600	15.810	66,400	3,160	15.819	-658,055	Normal Price	
30/6/2016 11:16:46.375	<b>û</b> 15.800	15.8	500	15.800	14,800	15.810	66,200	7,900	15.819	-661,215	Normal Price	
30/6/2016 11:16:46.375	15.800	15.8	100	15.800	15,400	15.810	66,200	1,580	15.819	-669,115	Normal Price	
30/6/2016 11:16:46.375	<b>15.800</b>	15.8	200	15.800	15,600	15.810	66,200	3,160	15.819	-670,695	Normal Price	
30/6/2016 11:16:46.365	15.800	15.8	600	15.800	16,200	15.810	61,500	9,480	15.819	-673,855	Normal Price	
30/6/2016 11:16:46.335	15.800	15.8	100	15.800	16,200	15.810	66,100	1,580	15.819	-683,335	Normal Price	
30/6/2016 11:16:46.324	<b>û</b> 15.800	15.8	100	15.800	16,400	15.810	66,700	1,580	15.819	-684,915	Normal Price	
30/6/2016 11:16:46.315	15.800	15.8	1,200	15.800	16,400	15.810	66,700	18,960	15.819	-686,495	Normal Price	

- 1. In the Eikon Toolbar, search **<TAS>** in order to open the time and sales application.
- 2. In the search bar within the application, search for the instrument you are interested in using
- 3. The application would list the different trades made for this specific instrument. Everytime a solid green or red arrow is shown next to the price, it indicates a change in price.



4. One of the column in the page is a calculate VWAP figure which is calculated by Eikon. Note that this figure differs from that in the quote page.

eo S	<b>←</b> → 182	DBSM.SI	Quote	₹Q ∨	DBSM.S	a (	Q		968	-6 :	≡		
DBSM	.SI	DE	BS GRP	HLDGS	DOS	5 C	SES/SES SGD	DBSM.SIB2	2 30	JUN16	15	5:11	1
Las	t	Trd.Vol		Net.Chng	9	Size	Bid Ask	Size					
15. 15. 15. 15. 15.	790 790 790 790 790	100	- -   	+0.250 % Chng +1.61 % Moves 6588		80300 1	5.780/15.790	40600					
Off Cls	cl.Close .Bid/Ask	15.520	/15.53	0 29JU	N16		Acc.Volume 10514300	Turnov 166875	ver 5197.70				
Ope Hig Low Cls Yr. Yr. VWA VWA	n 29JUN16 Hi 23JUL15 Lo 12FEB16 P P Vol	16.040 16.040 15.710 15.530 21.500 13.010 15.8872 9123900		12M EPS 12M P/E 12M Div Div Pay Div Ex Div Yld Div . Ccy	1.7428 8.91 0.6000 20JUN16 05MAY16 3.86 % SGD	INT.Div Ex.Date Sp.Div Ex.Date Fin.Div Ex.Date Lot.Siz	e 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Status ISIN Sector Corp.A News	s SG - 0# Act 11	/ 1L0100 FIAN.S / :14	(170) I	1	
Ava	.Vol.5D	8956300		Prc Chno	alM -0.064	%	M Deal	1390400					Ŧ

Also, on the TAS application, you are able to plot the VWAP against the traded price as shown below.





The second method to obtain TAS data is to utilise the company overview page as shown below.

- 1. In the Eikon toolbar, search for the company or RIC you are interested in finding.
- 2. Navigate Price & Charts > TAS or VWAP depending on which information you are seeking.

් ← → DBSM.	.SI 🛛 🛛 🔢 DBS Gr	oup Holdings Ltd I	VWAP					C = _ ø ×
			. <i>Г</i>	45.000 CCD 0	070 4 74% V-L 0	470.400		
Singapore   Singapor	re Exchange Securities Tradi	ng Ltd   Banks		15.800 360 0.	270 1.74% 001 8	,170,100		VWAF VWAF
Overview News	& Research Price & Char	ts Estimates	Financials Events (	Ownership Debt &	& Credit Peers & Va	luation Derivatives Fili	ngs 360 Menu	
VWAP = 30	0-Jun-2016 00:00, 30-Jun-20	16 11:19, Single Ve	nue					봔
Start	End			Price Limits	s Volume Ra	ange		
30-Jun-2016	00 00 00 11 19 49	30-Jun-2016	Now Hold Date	& Time -		- Opdate vie		
Single Venue	Exchanges & Types 비용 + Exchanges (1), T	vpes (2)	icipation Order Quantity	Rate (%)				
	VWAP VOLUME							
15.9104	7,326,400	STD DEV TH 0.074850 4,	RADES AVG TRD SZ 139 1,770	FIR ST <b>16.0400</b>	LAST LOW 15.8000 15.7100	HIGH <b>16.0400</b>		
Volume VAP T	Trades By Condition Trades	s By Venue Trad	s /VAD Charts					
Date	Local Tim	Volume	Price	Turnover	Exchange	Trade Type		
30-Jun-2016	11:17:01.715	14,500	15.8100	229,245	Singapore SE	Normal Trade		
30-Jun-2016	11:16:46.286	40,000	15.8000	632,000	Singapore SE	Normal Trade		
30-Jun-2016	11:16:45.805	14,800	15.7900	233,692	Singapore SE	Normal Trade		
30-Jun-2016	11:15:44.609	23,900	15.8100	377,859	Singapore SE	Normal Trade		
30-Jun-2016	11:11:47 218	30,000	15,8100	474 300	Singapore SE	Normal Trade		
30-Jun-2016	11:04:23.038	17,700	15.8100	279,837	Singapore SE	Normal Trade		
30-Jun-2016	11:03:53.299	25,900	15.8100	409,479	Singapore SE	Normal Trade		
30-Jun-2016	11:00:13.670	12,600	15.8100	199,206	Singapore SE	Normal Trade		
30-Jun-2016	11:00:08.981	13,000	15.8100	205,530	Singapore SE	Normal Trade		
30-Jun-2016	10:48:42.382	15,000	15.8100	237,150	Singapore SE	Normal Trade		
30-Jun-2016	10:44:10.943	13,600	15.8100	215,016	Singapore SE	Normal Trade		
30-Jun-2016	10:43:25.149	13,000	15.8100	205,530	Singapore SE	Normal Trade		
30-Jun-2016	10:37:12 265	16,900	15.8200	267 358	Singapore SE	Normal Trade		
20 Jun 2016								
30-Juli-2010	10:28:16.907	20,000	15.8500	317,000	Singapore SE	Normal Trade		
30-Jun-2016	10:28:16.907 10:28:16.888	20,000 13,400	15.8500 15.8500	317,000 212,390	Singapore SE Singapore SE	Normal Trade Normal Trade		
30-Jun-2016	10:28:16.907 10:28:16.888	20,000 13,400	15.8500 15.8500	317,000 212,390	Singapore SE Singapore SE	Normal Trade		
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      -         -       -         Volum       -         -       -         Volum       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         -       -         - <td>Normal Trade           Normal Trade           Normal Trade           Itation         Derivatives         Filin           Iduation         Derivatives         Filin           olume Range         Iduation         Bito           olume Range         Iduation         Iduation         Iduation           olume Range         Idua</td> <td>ngs 360 Menu 2pdate View 1 2 3 Ask 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810</td> <td>C ≡ _ ∞ × TIME &amp; SALES TASV</td>	Normal Trade           Normal Trade           Normal Trade           Itation         Derivatives         Filin           Iduation         Derivatives         Filin           olume Range         Iduation         Bito           olume Range         Iduation         Iduation         Iduation           olume Range         Idua	ngs 360 Menu 2pdate View 1 2 3 Ask 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810	C ≡ _ ∞ × TIME & SALES TASV
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Volum       -       -       9.         0       -       -       9.         0       -       -       9.         0       -       -       9.         0       -       -       9.         0       -       -       9.         0       -       -       9.         0       -       -       9.         0       -       -       9.         0       -       -       9.         0       -       -       10.         0       -       -       10.         0       -       -       10.         0       -       -       10.         0       -       -       10.         0	Normal Trade           Normal Trade           Normal Trade           Itation         Derivatives         Filin           Itation         Itation         Bild         Itation           Itation         Itation         Bild         Itation         Itation           Itation         Itation         Itation         Itation         Itation         Itation           Itation         Itation         Itation         Itation         Itation         Itation         Itation           Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation         Itation </td <td>ngs 360 Menu 2pdate View 1 2 3 Ask 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810</td> <td>C       ≡       _       ∞         TIME &amp; SALES TASV         Image: Control of the state state</td>	ngs 360 Menu 2pdate View 1 2 3 Ask 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810 15.810	C       ≡       _       ∞         TIME & SALES TASV         Image: Control of the state
Si-Jun-2016 Singapore   Singapore   Sing	10.28:16.907 10.28:16.888 SI Q IF DBS GROUP HOL Table S GROUP HOL SI DBS GROUP HOL SI Coll Fill S Coll S Research Price & Charl S Coll Time V Start Date Start Start Start Start Start Start	20,000 13,400 oup Holdings Ltd I DINGS LTD ng Ltd   Banks ts Estimates D16 00 00 00 out are valid only within ge: 30-Jun-2016, 10 Tick	15.8500 15.8500 Time & Sales Financials Events Financials Financials Financia	15.800 SGD 0. 212,390 Debt 4 212,390 Debt 4	270       1.74%       Vol       8         270       1.74%       Vol       8         270       1.74%       Vol       8         20       20       20         ice Limits       V       20         -       20       50         30       20       50         40       10       30         50       50       30         20       50       30         20       50       30         20       50       30         20       50       30         20       50       30         20       50       30         20       50       30         20       50       30         20       50       30         20       50       30         20       50       30         30       50       30         30       60       30         40       40       40         40       40       40         40       40       40         40       40       40         40       40       40	Normal Trade           Normal Trade           Normal Trade           Itation         Derivatives         Filin           Itation         Itation         Elin           Itation         Itation         Elin         Itation           Itation         Itation         Itation         Itation           Itation <thitation< th="">         Itation         <thitation< th="">     &lt;</thitation<></thitation<>	ngs 360 Menu 2pdate View 1 2 3 4 2 3 1 5 810 1 5 81	C     E     -     0     ×       TIME & SALES     TASV       4     5     6     7     8     9       4     5     6     7     8     9       4     5     6     7     8     9       4     5     6     7     8     9       4     5     6     7     8     9       4     5     6     7     8     9       4     5     6     7     8     9       4     5     6     7     8     9       4     5     6     7     8     9       4     5     6     7     8     9       4     7     8     9     80       4     7     9     9     80       4     7     9     9     80       4     7     9     9     80       4     6     320     3     6



### Index Movers <IMO>

The Index Movers application **<IMO>** provides fundamental, reference and real-time data in a customizable display for an index, its constituents, sectors and statistical data. The primary objective of this app is to highlight the stocks within a particular index that have the strongest impact on the index value.

1. STOCKS: users can double-click on an individual stock to see all indices in which it is traded

2. INDICES: Users can double-click on an individual index to see all the companies whose stocks make up that index.

The same analysis can be performed on all indices in which a particular stock is traded worldwide, as well as a summary of the effect certain sectors within an index are having on a whole.

For example, an example of the Stocks, Sectors and Indices pages have been provided.

To arrive at this page, in the Eikon Toolbar, search <IMO>.

1. 🚻 🖏	1225 Index Movers 🛛 🗸 🔾 🗸	.N225 Q					-€ ≡ _ ø ×
NIKKEI	225 INDEX 15,694.81	▲ 127.98 0.82% JPY					
			46 4005 10 505				
III 51	OCKS SECTORS	INDICES 30/6/20	16 #225 LC: 6954	41 0.10% SC: 4323			
RIC	Name	<ul> <li>Last Pct.</li> </ul>	Chng Pct.Chng.E	lar Net.Chng Idx	Pts.Net I	dx.Pts.Pct	Sector
5101.T	YOKOHAMA RUBBER	1,292.000	2.220	28.000	0.554	0.004	Consumer Discretionary
6841.T	YOKOGAWA ELEC	1,167.000	3.090	35.000	1.381		Information Technology
6506.T	YASKAWA ELEC		-0.070	-1.000			Information Technology
9064.T	YAMATO HOLDINGS	2,319.500	0.870 —	20.000	0.787	0.005	Industrials
7951.T	YAMAHA CORP		-3.050 ———	-87.000			Consumer Discretionary
4689.T	YAHOO JAPAN		-1.310 —	-6.000			Information Technology
9021.T	WEST JAPAN RY		-0.390 =	-25.000			Industrials
8270.T	UNY GROUP HLDG	858.000	0.000	0.000	0.000	0.000	Consumer Staples
3103.T	UNITIKA		-1.790 —	-1.000	-0.040	0.000	Consumer Discretionary
4208.T	UBE INDUSTRIES		-1.170 —	-2.000	-0.079	-0.001	Materials
4704.T	TREND MICRO	3,655.000	3.100	110.000	4.339	0.028	Information Technology
8015.T	TOYOTA TSUSHO	2,204.000	1.750	38.000	1.495	0.010	Industrials
7203.T	TOYOTA MOTOR CO	5,160.000	0.800 -	41.000	1.610	0.010	Consumer Discretionary
3101.T	ТОУОВО	196.000	1.550	3.000	0.118	0.001	Materials
5901.T	TOYO SEIKAN HLDG	1,951.000	0.360 -	7.000	0.273	0.002	Materials
5332.1		4,055.000	1./60	/0.000	1.383	0.009	Industrials
4042.1	TOSOH CORP	4/1.000	1.0/0	5.000	0.196	0.001	Materials
6502.1	TOSHIBA CORP		-0.290 -	-0.800	-0.032	0.000	Industrials
3402.1	TORAY INDUSTRIES		-0.250+		-0.089	-0.001	Matenais
/911.1	TOPPAN PRINTING	882.000	-0.900-	-8.000	-0.318	-0.002	Industrials
3289.1	TOKYU FUDUSAN HD	639.000	1.590	10.000	0.394	0.003	Financials
9005.T	TOKYU CORP	892.000	0.340 •	3.000	0.118	0.001	Industrials
8804.1	TOKTO TATEMONO	1,237.000	1.980	24.000	0.474	0.003	Financials
9031.1 9025 T		420,400	0.450	242,000	0.074	0.000	Oullues
0033.1 0501 T	TOKTO ELECTRON	6,009.000	1.420	242,000	9.349	0.001	Information recimology
9501.1 0691 T		423.000	2.010	12,000	0.024	0.000	Concurrent Discretionany
4042 T	TOKTO DOME CORP	291.000	0.260	1,000	0.012	0.003	Materiale
9766 T		2 209 000	1.300	42.000	0.039	0.000	Financiale
5201 T		3,390,000	1.280	43,000	0.040	0.005	rinanciais Motoriale
5707 T		200,000	1.000	2,000	0.110	0.001	Materials
0602 T	TOHO	2 832 000	0.390	11,000	0.043	0.001	Consumer Dierrationany
0002.1 0001 T	TOBU RATI WAY	550 000	0.000	0.000	0.000	0.000	Industriale
4542 T	TERLIMO CORR	4 200 000	-0.110	-5.000	.0.000	0.000	Haalth Care
3401 T	TETIIN		-2 270	-8.000	-0.350	-0.000	Materials
6762 T	TDK CORPORATION	5,720,000	0.700 -	40.000	1.562	0.010	Information Technology
4502.T	TAKEDA PHARM	4.450.000	0.230+	10.000	0.396	0.003	Health Care
8233.T	TAKASHIMAYA	740.000	3.790	27.000	1.067	0.007	Consumer Discretionary
2531.T	TAKARA HOLDINGS	938.000	1.520	14.000	0.554	0.004	Consumer Staples
6976.T	TAIYO YUDEN	896.000	1.820	16.000	0.632	0.004	Information Technology
1801.T	TAISEI CORP	844.000	0.720	6.000	0.237	0.002	Industrials
5233.T	TAIHEIYO CEMENT	246.000	4.240	10.000	0.395	0.003	Materials
8795.T	T&D HOLDINGS	869.600	1.100-	9.500	0.075	0.000	Financials
7269.T	SUZUKI MOTOR	2,791.000	2.880	78.000	3.085	0.020	Consumer Discretionary
8830.T	SUMITOMO RE&DEV	2,763.500	1.920	52.000	2.054	0.013	Financials
5232.T	SUMITOMO OSAKA	439.000	0.000	0.000	0.000	0.000	Materials
5713.T	SUMITOMO MTL MIN	1,037.000	1.020	10.500	0.412	0.003	Materials
8309.T	SUMITOMO MITSUI	331.200	1.810	5.900	0.232	0.001	Financials
6302.T	SUMITOMO HVY IND	450.000	2.040	9.000	0.355	0.002	Industrials
5802.T	SUMITOMO ELEC	1,358.500	0.260 •	3.500	0.137	0.001	Consumer Discretionary





On the Sectors pie chart, search for an equity index and double-click on any section to delve deeper into the sector, (e.g. components of Industrials).

ළ III C Index Movers スロッ C Q										-#	= -	
I STOCKS SECTORS In INDICES 30/6/201	6											
Index	<ul> <li>RIC</li> </ul>	Last	Net.Chng	Pct.Chng	Idx.Pts.Net	Idx.Pts.Pct	Rel.Pct.Chng	Wght.Pct	Live.Wght.Pct			
Dow Jones Global Titans 50 Index	.DJGTE											
Dow Jones Global Titans Index	.DJGT											
Dow Jones U.S. Financials Index	.DJUSFN	421.420	9.060	2.200								
NYSE Arca Institutional Index	.XII	N/A	N/A	N/A				- NF				
NYSE Composite Index	.NYA	N/A	N/A	N/A				- NF				
S&P 100 Index	.OEXA	916.820	14.460	1.600				- NF				
S&P 500 Banks (Industry)	.SPLRCBKS	289.380		2.690				- NF				
S&P 500 Banks Index (Industry Group)	.SPXBK	202.550	5.300					- NF				
S&P 500 Diversified Banks (Sub Ind)	.SPLRCRBNK	347.830	9.600	2.840				- NF				
S&P 500 Financial (Sector)	.SPSY	303.630	6.860	2.310				- NF				
S&P 500 Index	.SPX	2,070.770	34.680	1.700				- NF				
S&P 500 Value Index	.IVX	904.100	16.240	1.830				- NF				
S&P 900 Index	.SPLGMID	4,724.170	79.380	1.710				- NF				
S&P Composite 1500 Banks (Industry Group)	.SPCOMBK	216.690	5.710	2.700				- NF				
S&P Composite 1500 Banks (Industry)	.SPCOMBKS	301.890	8.000	2.720				- NF				
S&P Composite 1500 Diversified Banks (Sub Ind)	.SPCOMRBNK	363.170		2.840				- NF				
S&P Composite 1500 Financials (Sector)	.SPCOMF	338.060	7.440	2.250				- NF				
S&P Composite 1500 Index	.SPSUP	478.630	8.100	1.720				- NF				
STOXX Global 150 EUR Price Index	.SX150P							- NF				
Thomson Reuters Americas Index	.TRXFLDAAPU	102.050	1.820	1.820								
Thomson Reuters Americas Total Return Local Currency Index	.TRXFLDAATL	199.580	3.450	1.760								
Thomson Reuters CRI US Large Cap Environmental Index (EUR)	.TRENVUSE1	1,843.150	0.330	0.020								
Thomson Reuters CRI US Large Cap Environmental Index (USD)	.TRENVUS1	1,404.780	0.000	0.000	0.000	0.000						
Thomson Reuters CRI US Large Cap ESG Index (EUR)	.TRESGUSE1	1,851.760	0.330	0.020								
Thomson Reuters CRI US Large Cap ESG Index (USD)	.TRESGUS1	1.411.380	0.000	0.000	0.000	0.000						

On the Indices page, search for a stock in order to view on which indexes it is included in as well as the impact it had on the price of that equity index.



## Signal <SIGNAL>

Signal monitors a list of securities real-time against one or more technical criteria and immediately alerts you in the signal panel when a security meets one or more of the conditions.

In the Eikon toolbar, search **<SIGNAL>** to open the application.

් ← → 🕅 Signal - S1467257239696*							c	# =	= _		
🗄 🗹 Show Dashboard										₩ ₩	1
Add symbol or portfolio	005930.KS	1,425,000 🔺 Close At	bove 14D SI	/A					- F	Price KRW	
Add signal							Pres P	  ++ ¹		1,425,0	00
CLOSE ABOVE 14D SMA 2	<b>ь</b>		, here areas	ույիլ Մեր	, The Pup to us				1	1,300,00	00
005930.KS MSFT.O	L _{II}	the man at the state							1	1,200,00	00
	- All								- 1	1,100,00	00
	Jan	Feb	Mar	2016	Apr	May	Jun				
		2014		20	15		2016	-			
+ 🗹 1 DAY REVERSAL BUY 0	1M 3M	6M YTD 1Y	2Y 5	Y							
+ 🗹 REVERSAL SELL 0		Company name		Time	Last	Net Chng	Pct Chng		н	igh	
+ 🗹 BOLLINGER PINCH:250D 0	005930.KS	Samsung Electroni		14:26	1,425,00	29,000.00	2.08 %	1,	,445,00	)	1,39
	MSFT.O	Microsoft Corp	t	4:00	50.54						

After opening the application, there are certain steps you have to take in order to set up your signal application.

- 1. Click the icon next to the "Add symbol or portfolio" option in order to customise which Portfolios, Chain RICs or Individual RICs you are interested in.
- 2. Click the icon next to the and the "Add signal" option in order to customise the type of signal you want to monitor.

Symbol List Manager			Signal Manager		
Add symbol or portfolio			Select the Signal(s) you w	ant to monitor	
SYMBOLS		×	All Signals	Search	Q
✓ 005930.KS	Samsung Electronics Co Ltd	×	Custom Signals	Bollinger Pinch:120D	0
	Apploing		Bands	Bollinger Pinch:250D	
MAPL.U	Apple linc		Complex Oscillators	Bollinger Pinch:50D	
GOOGL.O	Alphabet Inc	×	Moving Average Crosses	Bollinger Pinch:60D	
🗹 ІВМ	International Business Machines Corp	×	Moving Averages	Bollinger Pinch:90D	
MSFT.O	Microsoft Corp	×	Overbought/Oversold		
			Reversals	21D-34D EMA XOver	
			Desorption Strategy Formula		
			Move Left Move Right		Remove All
			Close Above 14D SMA × 1 Da	y Reversal Buy × Reversal Sell	×



### Aggregate <AGGR>

Aggregate gives users access to the Aggregates matrix which provides a useful way to analyze a metric across both sectors/industries and regions/countries at a glance.

In order to utilize this application,

- 1. In the Eikon Toolbar, search <AGGR>
- 2. In the leftmost column adjust the following parameters
  - All active equities
  - Geography
  - Business Classification
  - Market Cap
  - Layout of the report

3. After pressing update. You could sort the rows by the different parameters you have selected. (E.g. here, we have sorted it by the Price to Cash Flow Per Share from the lowest value to the highest value)

් 🔶 🕂 📑 Aggregates Rep	ort						C = _ @ ×			
AGGREGATE SETTINGS	📭 Universe: All Active Equities Geography: Countries (Singapore) Business Classification: All Market Cap: All 🗭 Tell us what you think 🧮 🗒 🕥									
FILTERS Universe All Active Equities	Trailing Valuation V	P/E (Daily Time Series Ratio)	Enterprise Value To EBITDA (Daily Time Series Ratio)	Enterprise Value To Sales (Daily Time Series Ratio)	Price To Cash Flow Per Share (Daily Time Series Ratio)	Price To Book Value Per Share (Daily Time Series Ratio)	Dividend Yield, Percent, LFY			
Countries (Singapore)										
Business Classification	Insurance (3)	15.06		6.23		1.50	2.62%			
All 🗸	Diversified Financials (16)	17.40	11.50	5.26	6.43	1.85	3.93%			
Market Cap	Energy (28)		12.83		6.51	0.88	7.62%			
All	Technology Hardware & Equipment (15)	16.54		0.36	6.90	1.69	5.47%			
REPORT LAYOUT	Transportation (20)	23.75	10.94			1.28	4.46%			
Rows	Household & Personal Products (2)	21.84	5.51	0.53		1.26	2.90%			
Industry Group	Materials (16)	29.27	11.21		7.39	0.79	3.17%			
Columns	Retailing (19)	15.43	8.79		7.42	1.54	3.68%			
	Real Estate (72)	11.04	20.59	7.00	8.88	0.78	4.40%			
Update Revert	Consumer Services (20)	29.70	12.86	3.59	9.66	0.77	2.59%			
	Food, Beverage & Tobacco (17)	19.67	12.07	0.82	10.34	1.09	2.39%			
	Telecommunication Services (4)	16.19	13.37	3.98	12.88	2.73	4.69%			
	Utilities (4)	26.14	13.58	3.66	13.48	0.89	3.43%			
	Automobiles & Components (1)	16.06	10.72	2.74	13.68		2.42%			
	Commercial & Professional Services (20)	29.52	12.31	1.44	16.07	1.81	3.15%			
	Software & Services (7)	17.58	10.83	2.57	16.43	3.10	6.61%			
	Consumer Durables & Apparel (1)	108.37	26.74	0.67		1.75				
	Pharmaceuticals, Biotechnology & Life Sci	12.63	868.35	3.36	25.41	1.08	2.34%			
	Semiconductors & Semiconductor Equipm		28.71	7.90			0.73%			
	Health Care Equipment & Services (13)	46.60	23.62	5.23		2.67	2.17%			
	Media (4)	18.27	14.86	6.34	36.05	1.55	14.20%			
	Capital Goods (60)	20.36	17.07				6.34%			
	Food & Staples Retailing (5)	122.66	16.67	0.84		1.23	2.89%			
	Banks (3)	9.39		3.83		0.96	2.98%			



### Monitor Application <MON>

In Eikon, users are able to utilise the Monitor application in order to track different instruments such as single RICs, equity indexes etc. Here you can specify the different columns you wish to view as well as to choose which specific instruments you are interested in.

ഹ	ේ 🎹 Monitor 2									
	RIC	Name		Last	Net Chng	Pct.Chng	Company Market Cap	GICS Sector Name	+	
	CACT.SI	CAPITALAND TRUST		1.480	+0.025	1.72 %	4284934342.67377	Financials		
Ш	CATL.SI	CAPITALAND		3.060	+0.050	1.66 %	12816443782.3915	Financials		
	CMDG.SI	COMFORTDELGRO		<b>▲</b> 2.750	+0.060	2.23 %	5776736665.61129	Industrials		
Ш		CAPITALAND MALL					7692552953.03049	Financials		
Ш	CTDM.SI	CITY DEVT LTD		8.200			7427612018.63863	Financials		
Ш	DB SM. SI	DBS GRP HLDGS		15.800	+0.270	1.74 %	39162796630.3072	Financials		
Ш	GAGR.SI	GOLDEN AGRI		0.350	+0.015	4.48 %	4284049082.18538	Consumer Staples		
Ш	GENS.SI	GENTING SPORE		0.730	+0.025	3.55 %	8493517307.44836	Consumer Discretionary		
Ш	GLPL.SI	GLOBAL LOG PROP		1.795	+0.015	0.84 %	8589826888.34883	Financials		
	HKLD.SI	HONGKONG LAND		▼ 6.060	+0.070	1.17 %	14093312612.2	Financials		
Ш	HPHT.SI	HUTCHISON PORT		0.450	+0.015	3.45 %	3789328944.57	Industrials		
Ш	JCYC.SI	JARDINE C&C		▼ 36.480	+0.980	2.76 %	13976959168.8113	Consumer Discretionary		
	KPLM.SI	KEPPEL CORP		5.480	+0.070	1.29 %	9797092721.75346	Industrials		
Ш	OCBC.SI	OCBC		8.650	+0.160	1.88 %	35467911997.0088	Financials		
	SATS.SI	SATS LTD		4.130	+0.030	0.73 %	4590917016.37353	Industrials		
	SCIL.SI	SEMBCORP INDUST		2.840	+0.030	1.07 %	5003702712.95002	Industrials		
Ш	SCMN.SI	SEMBCORP MARINE		1.560	+0.015	0.97 %	3216269628.67546	Industrials		
Ш	SGXL.SI	SGX		7.640	+0.190	2.55 %	7953049630.77537	Financials		
Ш	SIAE.SI	SIA ENGR		3.700	+0.020	0.54 %	4118790306.75292	Industrials		
Ш	SIAL.SI	SIA LTD		10.680	+0.140	1.33 %	12597821972.6097	Industrials		
Ш	SPRM.SI	SPORE PRESS HLDG		3.950	+0.100	2.60 %	6138812963.58271	Consumer Discretionary		
Ш	STAR.SI	STARHUB		3.790	+0.040	1.07 %	6468224623.64486	Telecommunication Services		
Ш	STEG.SI	ST ENGRG		<b>▲</b> 3.140	+0.050	1.62 %	9611425191.01221	Industrials		
Ш	STEL.SI	SINGTEL		4.130	+0.090	2.23 %	64164167342.7452	Telecommunication Services		
	TBEV.SI	THAI BEVERAGE		0.910			22762273464.4098	Consumer Staples		
	UOBH.SI	UOB LTD		18.380	+0.420	2.34 %	28975676711.0947	Financials		
	UTOS.SI	UOL LTD		5.450	+0.080	1.49 %	4311373325.47923	Financials		
	WLIL.SI	WILMAR INTL		▼ 3.270	+0.040	1.24 %	20603488547.488	Consumer Staples		
	YAZG.SI	YANGZIJIANG		0.895	+0.005	0.56 %	3401872657.90598	Industrials		

1. In the Eikon toolbar, search **<MON>** to open the Monitor application.

2. By default, the RIC, Name, Last Price, Net and Percentage change columns will be displayed. However, you are able to specify any other information available to be displayed.

You are also able to change the format of %Change column into that of a bar for better visual representation, sort by GICS sector and to add headers to separate sectors.



### Social Media Monitor <SOCIAL>

The Social Media Monitor **SOCIAL>** utilises text mining in order to view what is trending in the markets from a social perspective over the last few days.

You are able to choose different instruments by searching in the in-app search bar as well as choose between a sentiment line or bar chart for you visually view the positivity or negativity about a certain company in the social media network. This would give you an idea about the market sentiment with regards to a certain company and hence can help predict possible stock price movements.



- 1. In the Eikon Toolbar, search <SOCIAL> to open the social monitor application
- 2. Select the different instruments and click on the symbol to display it on the sentiment line or bar chart.
- 3. The leftmost column would display the latest tweets and posts about the company of interest.



Part 8: Introduction to Eikon Excel



# THOMSON REUTERS EIKON FOR MICROSOFT OFFICE QUICK REFERENCE CARD | FREQUENTLY USED FORMULAS

Financial Information	70.0		70.07	Operating Income
Revenue	TR.Revenue	EV	TR.EV	Revenue Estimate
COGS	TR.CostofRevenue lotal	Market Cap	TR.CompanyMarketCap	EBITDA Estimate
Depreciation	TR.Depreciation	Shares Out	TR.SharesOutstanding	EBIT Estimate
Gross Income	TR.GrossProfit	EPS	TR.BasicNormalizedEps	Net Income Estimate
S, G & A	TR.SGandAExp	Fully Diluted EPS	TR.DilutedNormalizedEps	CFPS Estimate
Total operating exp	TR.TotalOperatingExpense	BVPS	TR.BookValuePerShare	EPS
Operating Income	TR.OperatingIncome	CFPS	TR.CFPSActValue	DPS
Interest Income	TR.NetInterestIncome	FCF Per Share	TR.FCFPSActValue	ROE
EBIT	TR.EBIT	DPS	TR.DpsCommonStock	ROA
EBITDA	TR.EBITDA	R&D	TR.ResearchAndDevelopment	
Pretax Income	TR.NetIncomeBeforeTaxes	Income Tax %	TR.IncomeTaxRatePct	Valuation (historical)
Net Income	TR.NetIncome	Dep & Amortization	TR.DepreciationAmort	FV/Total Devenue
Total Assets	TR.TotalAssets	Cash & Equivalents	TR.CashAndSTInvestments	EV/EPITDA
Accounts Payable	TR.AccountsPayable	Receivables Total net	TR.TotalReceivablesNet	EV/EBIT
Current Liabilities	TR.CurrentLiabilities	Inventories	TR.Inventories	D/D/DS
Minority Interest	TR.MinorityInterestBSStmt	Current Assets	TR.CurrentAssets	
Preferred Stock Net	TR.PreferredStockNet	Total Debt	TR.TotalDebt	P/ TangovP3
Total Liab & Equity	TR.TtlLiabShareholderEqty	Net Debt	TR.NetDebt	P/ E
Fixed Income		Market Information		Valuation (forecast)
Issuer Name	TR.FilssuerName	RIC	TR.RIC	EV/Fwd Total Rev
Maturity Date	TR.FiMaturityDate	Closing Price	TR.PriceClose	Fwd EV/EBITDA
Current Yield	TR.FiCurrentYield	Opening Price	TR.PriceOpen	Fwd EV EBIT
Current Price	TR.FiPrice	Intra Day High	TR.PriceHigh	Foward P/EPS
PrincipalAmount	TR.FiFacelssuedTotal	Intra Day Low	TR.PriceLow	PEG Ratio
		Trading Volume	TR.Volume	P/Foward CFPS
Credit Rating		Dividend Yield	TR.DividendYield	
Rating	TR.GR.Rating	BETA 5 Year	TR.BetaFiveYear	Valuation SmartEstimates
Moodys Rating	TR.FiMoodysRating	Shares Outstanding	TR.SharesOutstanding	Fwd EV/Revenue
S&P Rating	TR.FISPRating	Headquarters	TR.HeadquartersRegion	Fwd EV/EBIT
Fitch Rating	TR.FiFitchsRating	Industry	TR.TRBCIndustry	Fwd EV/EBITDA
		Business Description	TR.BusinessSummary	Fwd P/EPS

TR.RecMean, TR.RecLabel TR.PriceTargetMeanEst TR.CAPEXMean TR.OPRMeanEstimate TR.RevenueMeanEstimate TR.EBITDAMean TR.EBITMean TR.NetIncomeMeanEstimate TR.CFPSMean TR.EPSMeanEstimate TR.DPSMean TR.ROEMean TR.ROEMean

Consensus Estimates Average Broker Rec

Price Target

CAPEX

- TR.EVToSales TR.EVToEBITDA TR.EVToEBIT TR.PriceToBVPerShare TR.PriceToTangBVPerShare TR.PE
- TR.EV/TR.RevenueMeanEstimate TR.EV/TR.EBITDAMean TR.EV/TR.EBITMean TR.PtoEPSMeanEst TR.PEG TR.PtoCPSMeanEst
- TR.FwdEVtoREVSmartEst TR.FwdEVtoEBISmartEst TR.FwdEVtoEBTSmartEst TR.FwdPtoEPSSmartEst



#### Chapter 8: Introduction to Eikon Excel

Date and Time functions												
=DfAddWD Adds the number of working days to a date 🦷 Syntax:							Syntax:	=DFAdd <mark>Months</mark> (Calendars, CalcDate, Nb <mark>Months</mark> , DfMode)				
=DfAddMonths		Adds the number of months to a date e.g. = D						AddWD("USA","30JUN05",2,"")				
=DfAddYears	=DfAddYears Adds a number of years to a date J Function							n Outpu	t: July 5th 2005 (	July 4th 2	2005 is a non-working da	ay in the US,
=RTNow		R	etrieves th	e current system tim	e		hence t	he next v	vorking day is ret	rieved)		
=RTToday		R	letrieves th	e current system dat	e							
Financial Period Syntax								NULL	: Populating emp	oty cells		
Relative Periods					Period /	Argument	Codes	NULL	ZERO	d	displays O	
FY[n] Fiscal Year	2		(Replace n	with 0 for last	FYO Last Fiscal Year		NULL	LL:NA displays #NA				
FQ[n] Fiscal Quarter			reported p	eriod, -1 for	FY1	Next Fiscal Year		NULL	:NAND	d	displays #N/A ND	
FI[n] Fiscal Interim			previous p	eriod and 1 for	FY-1	FY-1 Previous Fiscal Year		NULL:SKIP skips line if no data for at		skips line if no data for at	least one instrument	
FS[n] Fiscal Semi-Annua	ι		next perio	d)	FQ0	Last Fiscal Quarter		NULL	PREVIOUS	d	duplicates value of the pr	revious data point
CY[n] Calendar Year	J				FI	Fiscal I	nterim	NULL	:NEXT	d	duplicates value of the fo	llowing data point
					FS	Fiscal S	emi-Annual	Scale	Parameter			Chain Instruments
Absolute Periods					CY	CY Calendar Year		0	No Scaling			e.g. 0#.DJA, 0#.FTSE, 0#.STOXX, 0#.NDX, 0#.N225
FY[YYYY] e.g. FY2014, FY2012				LTM	Last Twelve Months		3 Scale the value into thousands		ousands	(.FTSE is the RIC of FTSE100 index, while 0#.FTSE gives all the RICs for the index constituents)		
CY[YYYY] e.g. CY2013 NTM Next Twelve Months				velve Months	6 Scale the value into millions			illions	Res for the index construentsy			
[q]FQ[YYYY] Fiscal Year/	quarter e	e.g. 3	3FQ2013					9	9 Scale the value into billions			
[s]FS[YYYY] Fiscal Semi-Annual e.g. 2FS2013												
Eikon Formulae Shortcuts							Usefu	LISO Codes				
=RIC Identifier la	okup		CTRL - Selects top hit			hit		Austra	alian Dollar	AUD		
=DI Data Item	ookup		l	TAB - Moves to ne	xt argume	t argument		Delated	Deved	CDD		
=ANS Answers ye	ur quest	ion	(	Enter - Commits fu	unction			Britisi	n Pound	GBP		
=TR Formula b	uilder		Esc - Exits out of assistant					Canad	lian Dollar	CAD		
Basic Eikon Formula								Chine	se Yuan	CNY		
TR(Instrument(s), Data Item(s), Parameters(s))								Danis	h Kroner	DKK		
"=TR("MSFT.O","TR.TotalRevenue","Period=FY0")								Euro		EUR		
displays Microsoft's most recent fiscal year total revenue.								Hong	Kong Dollar	нкр		
								nong	Nong Dottai	1000		
Advanced Elkon Formula								Japan	ese Yen	141		
TR(Instrument(s), Data Item(s), Parameters(s), Destination cell, Cell references)								Swed	ish Kronor	SEK		
"= TR(" <b>MSFT.O</b> "," <b>TR.Revenue</b> ","Period=#1 Scale=#2 Curn=#3 CH= Fd", <b>\$A\$1,B1,C1,D1</b> )								Swiss	Franc	CHF		
displays : <b>Microsoft's Revenue</b> for the <b>period in cell B1, scaled to the number in C1</b> converted to <b>currency</b> <b>in D1</b> , with column header. The output is shown in cell \$4\$1						ted to currency	US Do	ollar	USD			


## 1. Basics to Eikon Excel

#### **Overview**

In order to access Eikon Excel, one should open the Thomson Reuters - Microsoft Excel application and do the following.

In the Thomson Reuters tab, press on the Offline Jutton to log in. Ensure that the button now shows online before proceeding.

Despite the many capabilities of the application, we will only focus on the core functions required for you to utilize.

On the Thomson Reuters Tab, the following can be seen



#### Key Functions Available in Eikon Excel

#### 1. Data Retrieval

The data retrieval function could be used to retrieve real-time data and to generate tables containing a list of instruments and data items. (E.g. EPS of Apple)

#### 2. How to build your own formula

Using the "Build Formula" button in the toolbar, one can use the application to customize their own formulas with different instruments, data items and specific parameters. Here, both real-time and historical figures can be retrieved.

#### 3. How to screen for stocks

Similar to the SCREENER application in Eikon, one can use this application to generate a list of equities based on their filter preferences.

#### 4. How to plot charts

Real-time charts with the ability to reflect real-time changes can be plotted with this function

#### 5. How to use templates to generate more complex spreadsheets

Using the sample templates available in Eikon Excel, users who wish to prepare more sophisticated spreadsheets can now do so with ease.



#### How to Generate a Basic Table <=RIC> and <=DI>

Note that the positioning of where the information is entered is important. Hence, we would provide example cell numbers in order to illustrate the following.

Assuming you have a new spreadsheet open in Excel, the following steps could be observed in order to generate a list or table of data and instruments.

1. In Cell A2, (A3, A4 etc), enter the list of RICs (Reuters Instrument Code) you require.

Type "=RIC(" to pull up the following function and type in the instruments. Note that you can only enter one instrument per row. The code will also be hard coded and is not part of a formula.



2. In Cell B1 (C1, D1 etc), enter the list of Data Items you require.

Type "=DI(" to pull up the following function and type in the data items (e.g. EPS, Dividend). Note that you can only enter one Data item per row.



3. After keying in all your required instruments and data items, right-click in cell B2 and select <Thomson Reuters SpeedData> for the results to appear as follows.

	TR.TotalRevenue	TR.CompanyMarketCap	TR.RepEPSMean
STEL.SI	16961200000	61297552416	0.25019
DBSM.SI	NULL	39225098942	1.72953
STAR.SI	2444300000	6174211233	0.2005
MONE.SI	1157196000	2361796484	0.18769
OCBC.SI	NULL	34730446296	0.87755
С	NULL	1.26672E+11	4.70414

4. To "refresh" the table to make new figures appear for every RIC or DI entered, there are two ways to do so:

- A: Right Click in B2 and repeat Step 3 to make the figures appear again
- B: Press F2 after selecting B2 and drag the formula box to include the new RICs and DI

Please refer to the next page for another method to create the list.



#### How to use the <=TR> function on Excel

Users who wish to create a more complex list or table may find the above example a little tedious. Hence, there is another method, albeit more complicated, that could be used.

1. In any empty cell, type "=TR(" to pull up the following.



2. To start off, we would choose different instruments (E.g. AAPL.O for Apple and GOOG.O for Google), pressing enter after each instrument.

3. To continue to the Data Items, press the TAB button

4. Enter different data items (e.g. Total Revenue, Company Market Cap), separating each item by pressing enter.

5. Moving on to the period parameter, first type **<PERIOD>** and hit enter, type in FY0

6. In order to make the Column and Row Headings appear, press enter after deciding the period and type **<CH>** and **<RH>** and select Field and Instruments respectively.

This would generate a formula similar to the following

=TR("GOOG.O;AAPL.O", "TR.TotalRevenue;TR.CompanyMarketCap;TR.BasicNormalizedEps", "Period:FY0 SDate:0CY EDate:-1AW; CH:Fd; RH:In")

Updated at 16:38:09	Total Revenue	Company Market Cap	<b>Basic Normalized EPS</b>
G00G.0	66001000000	5.28448E+11	20.59118
G00G.0	66001000000	5.16205E+11	20.59118
G00G.0	66001000000	5.17176E+11	20.59118
G00G.0	66001000000	5.16782E+11	20.59118
G00G.0	66001000000	5.04557E+11	20.59118
G00G.0	66001000000	4.96985E+11	20.59118
G00G.0	66001000000	4.98263E+11	20.59118
G00G.0	66001000000	5.05931E+11	20.59118
GOOG.O	66001000000	4.88298E+11	20.59118
G00G.0	66001000000	4.97236E+11	20.59118
G00G.0	66001000000	4.8308E+11	20.59118
G00G.0	66001000000	4.8308E+11	20.59118

Also, the table will be refreshed when you press the **<Refresh All Workbooks>** button in the Thomson Reuters Toolbar.



#### How to use Eikon Answers on Excel <=ANS>

Alternatively, in order to generate an active formula, instead of a hard code, one can type **<=ANS>** with your requirements, similar to how Eikon Answers works on Eikon.

1. Type "=ANS(" in any empty cell to pull up the following function

=ANS	
=ANS( Free Text )	

2. In the free text area, specify the companies and data items needed, leaving a space between each item. (e.g. UOB DBS OCBC Company Market Cap) or (e.g. UOB DBS OCBC EPS)

3. This would automatically correct into a function and display the results in a table, with an underlying active formula as shown below.

Updated at 17:51:57	Company Market Cap
UOBH.SI	29330412700
DBSM.SI	39331170914
OCBC.SI	34745247757

#### **Real-Time Data with Formula Builder**

One last way to retrieve real-time data is to utilize the Formula Builder Application, by pressing on the **Suild Formula** icon in the Thomson Reuters toolbar.

1. Insert the RIC that you require

2. Insert the data item you wish to inquire about. Note that the code for the last-trading price is <CF_Last>

3. Press Insert.

😑 FORMULA BUILDER			≡ _ □ ×
Instruments: STEL.SI Search Instruments			T ₽
🔻 DATA ITEMS 👪 🛃 Interval: Daily 🗸	Search Data Items		E
Favorites (2)	Net Chng	Description	Parameters & Quick Functions
Real Time (3882)	Ask	Parameters:	
Cross Asset (17)	Bid	Sor	t Order DESC ~
Equity (58)	Last	R	T Feed IDN 🗸
Equity Derivatives (34)	Close		
Fixed Income (60)	Tick		
Bond Derivatives (46)	Currency		
Credit Derivatives (54)	Source		
FX & Money (26)	High		
FX Derivatives (30)	Low		
Interest Rate Derivatives (24)	Add All (17)	_	
Selected Items: CF_LAST Drag to Reorder			
=TR("STEL.SI", "CF_LAST ")			Layout
Consolidate Formulas 🔢 📃 Add data fiel	ds as cell references 🖪 Update Frequency		Insert

Alternatively, enter the following <=TR("RIC","CF_LAST") for the figure.

## 2. Formula Builder

#### Method 1: Formula Builder manually

In order to enter data manually, you should do the following:

1. Enter the RIC (Instrument) required, and search for the data items either through the scroll menu at the side or by searching in the "Search Data Items" Bar.

😑 FORMULA BUILDER			= _ = ×		
Instruments: STELSI Search Instruments					
▼ DATA ITEMS					
Price & Volume (334)	Diluted Net Income	Description Par			
Reuters Fundamentals (1544)	Diluted Weighted Average Shares	Parameters:	Series		
<ul> <li>General Information (42)</li> </ul>	Diluted EPS Excluding Extraordinary Items	Last 🗸 🧕 🗸	FY		
Standardized Income Statement (297)	Diluted EPS Including Extraordinary Items	Roll Period	ls True 🗸		
Standardized Balance Sheet (343)	Gross Margin, Percent	Align Typ	e PrelimDate 🗸		
Standardized Cash Flow (105)	Operating Margin, Percent	Reporting Stat	e Rsdt 🗸		
Income Statement KPIs (153)	Pretax Margin, Percent	Currenc	v Default		
Polanco Shoot (/Pls (99)	Discontinued Operations				
Balance Sheet Kins (55)	DPS - Common Stock Primary Issue	Interim Typ	e Single 🗸		
Business and Geographic Segments (106)	Gross Dividends - Common Stock	Methodolog	y InterimSum V		
Private Company Fundamentals (399)	Basic Normalized EPS	Outpu	ut Value 🗸 🖬		
Period End Ratios (1464)	Add All (297)		Show Less		
Selected Items: TR.BasicNormalizedEps Drag					
=TR("STEL.SI","TR.BasicNormalizedEps ","SDate=	0 EDate=-2 Period=FY0 Frq=FY CH=Fd;fperiod RH=IN",B2)		Layout		
Consolidate Formulas E Add data field	Is as cell references El Update Frequency		Insert		

2. After choosing the data item required, proceed to the "Parameters & Quick Functions" Tab to adjust the different Periods, Currency and data required.

3. After selecting the items, select layout to arrive at the following page. Here, edit the type of headings you require and view a preview screen at the bottom. Press Ok to insert an active formula in your destination cell.

😑 Layo	😑 Layout _ 🗆 🗙					
AV	AILABLE HEADERS		COLL	JMNS (CH)		ROWS (RH)
Fina	Date Calc Date Period End Date Currency incial Period Relative	Drag	Financial F	Field Period Absolute		Instrument
Incl	Include NULL parameter Transpose Sorting Order: + B Drag to Reorder.					
Destina	ation Cell: B2 🗙 🔣	i Go to O _l				
		c				
2		Basic Norma	alized EPS	Basic Normalized	EPS	Basic Normalized EPS
3		FY2016		FY2015		FY2014
4	STEL.SI					
						ОК



#### Method 2: Formula Builder through Cell Referencing

To build a formula through cell-referencing, one should first set up a table as shown below

	TR.EPSMean		
	FY2015	FY2016	FY2017
STEL.SI			
DBSM.SI			
STAR.SI			

Open the Build Formula application.

1. Instrument Cell Reference by selecting the 🗮 icon next to the instrument search bar

2. Data Item Cell Reference (Note that the Data Item should be entered through the TR convention)

3. In the parameters tab, change the financial period to the last option <CELLREF > and select "FY2015"

Note: the year has to be typed with no space in between FY and 2015

4. Change the Cell Reference to remove the "\$" in front of the alphabet signifying the column. Note that this is essential.

😑 FORMULA BUILDER				≡	_ 🗆 ×
Instruments: \$A\$3:\$A\$5					Y R
🔻 DATA ITEMS 👪 🗹 Interval: Daily 🗸					R
Period End Ratios (1464)	Recommendation - Mean (1-5)	Description	Parame	eters & Quick Fun	ctions
Time Series Ratios (30)	Recommendation - Mean Label	Parameters:			Series
I/B/E/S Estimates (12761)	Price Target - Mean		As of	1D	~ ?
Summary Estimates (714)	Long Term Growth - Mean	Output 0	Option	Select	I
Detailed Estimates (728)	Revenue - Mean	Proprietary Data S	ource	ThomsonReuter	s 🗸 ?
Actuals (515)	EBITDA - Mean	Financial	Deried	p¢2	
<ul> <li>Summary Estimates (KPIs) (1307)</li> </ul>	EBIT - Mean	Financiar	renou	Dąz	
Detailed Estimates (KPIs) (1568)	Operating Profit - Mean		Lag		×
Actual ///Dia/ //1456)	Pre-Tax Profit - Mean	Roll P	eriods	TRUE	~
	Net Income - Mean	Aligr	і Туре	PrelimDate	$\sim$
Starmine Smartestimates (807)	Earnings Per Share - Mean	Consoli	dation	Consolidated	$\sim$
Estimate Ratios (147)	Add All (714)	<u></u>	rongu	Dofault	×
Selected Items: TR.EPSMean Drag to Reorde					
=TR(\$A\$3:\$A\$5, <mark>\$B\$1</mark> ,"Period=#1",,B\$2)					Layout
					Clear All
Add data fail					
					Insert



5. Go to layout and remove all the fields, as shown below. Under the Destination Cell, press "x" to delete any destination cell selected by default.

😑 Layout		×
AVAILABLE HEADERS	COLUMNS (CH)	ROWS (RH)
Field Drag Instrument Calc Date Date Reset Financial Period Absolute Financial Period Relative Currency NA		
Sorting Order: + I Drag to Reorder.		
Destination Cell: 🔣 🚹 Go to Options to		
	А	
1		
		ОК

6. To create the table, drag the formula to cover all the necessary cells.



## 3. Screener

The screener application on Eikon Excel is largely similar to that on Eikon itself, with a similar interface and design.

Press the Screener button in the Eikon Toolbar.

Adjust all the necessary fields, including the currency and universe (type of companies).



#### Generate a table that will look like the following by pressing "Insert Screen"

Company Common Name	Country of Exchange	Company Market Cap
Tiong Seng Holdings Ltd	Singapore	81433429.62
Global Palm Resources Holdings Ltd	Singapore	44205197.11
Bund Center Investment Ltd	Singapore	426673773
ES Group (Holdings) Ltd	Singapore	12508489.59
Smartflex Holdings Ltd	Singapore	18574900.34
Leader Environmental Technologies Ltd	Singapore	22781965.16
Yamada Green Resources Ltd	Singapore	35323375.57



## 4. Charting

Plot charts on Eikon Excel through the **Charts** button in the Toolbar using a similar interface to that of the F10 shortcut.

After specifying the range of cells to insert the chart component and the range of cells to be linked (if any), you will be prompted with the below page.

Insert Analysis			X
Ease of Movement Envelopes - Percentage Equivolume Hedge Ratio Ichimoku Kinko Hyo Indexed Price Performance / Reba- Inverse Kagi Kairi Keltner Channels Line Linear Regression Indicator Linear Regression Slope MACD MACD Forest Majority Rule Market Profile Median Price Mike Base Mike Medium Mike Strong Mike Weak Momentum Money Flow Index	General Display Level Lines Instrument Selection Feed: Instrument: (Q)  AAPL.O Parameters Interval:	Event Markers	Action: [Default] ▼
Click here to customize the Analysis List.		Add Cancel	Help

Here, you can select the line you want to plot, as well as insert any analysis necessary.

To return to this page after inserting the chart, press on the **Charts** button in the toolbar once again and click on Manage Charts > Insert Analysis.

You should be able to view a chart as follows.



Note that the date as well as the time zone can be customized to your needs as well



## 5. ISIN to RIC

Using Microsoft Excel, one is able to

GB00BH4HKS39			
US4592001014			
E FORMULA BUILDER			= _ <b>_</b> ×
Instruments: \$A\$6:\$A\$7			T
🔻 DATA ITEMS 🏙 🛃 Interval: Daily 🗸	ric		R
Top Matches (20)	RIC	Description	Parameters & Quick Functions
▶ Real Time (15)	RIC	RIC	*
Reference & Identifiers (11)	Primary Quote RIC	[TR.RIC]	
Price & Volume (2)	Stock RIC	VOD.L; IBM.N (GB	00BH4HKS39; US4592001014)
Period End Ratios (5)	Stock RIC	Definition: Reuters Instrument	Code consolidated with RICCode
► I/B/E/S Estimates (4)	Stock RIC		
Equity Index Information (3)	Stock RIC	Date: 02/08/1992 Description: Reuter	; 03/23/1990 's Instrument Code consolidated with
Lipper Funds (2)	Return On Invested Capital - Mean	RICCode; Reuters Ir	strument Code consolidated with
<ul> <li>Government/Corporate Bond (10)</li> </ul>	RIC Code	RICCode Name: TR.RIC; TR.I	RIC
<ul> <li>US Municipal Bond (1)</li> </ul>	Primary RIC	Display Name: RIC;	RIC
<ul> <li>Single Name CDS (7)</li> </ul>	Lipper RIC	-	
Selected Items: TR.RIC Drag to Reorder			
=TR(\$A\$6:\$A\$7,"TR.RIC ","CH=Fd RH=IN COD	E=ISIN")		Layout
			Clear All
Consolidate Formulas 🚹 📃 Add data fie	lds as cell references 🛐 Update Frequency		Insert

CELL REFERENCE _				
Instruments:	\$A\$6:\$A\$7 ISIN	\$A\$6:\$A\$7		
	Select	Cancel		
Updated at 10:07:23				
		RIC		
	GB00BH4HKS39	VOD.L		
	US4592001014	IBM.N		



#### Chapter 8: Introduction to Eikon Excel

😑 FORMULA BUILDER					≡ _ □ ×
Instruments: \$A\$2					T 🔣
🔻 DATA ITEMS 🚟 🛃 Interval: Daily 🗸	Search Data Items				R
Real Time (3882)	Trading Symbol		Description	Parameters & Quick	Functions
Reference & Identifiers (210)	Primary RIC		Parameters:		
	RIC Code			Output Value	~ <b>i</b>
General Information (36)	SEDOL Code				
Identifiers (38)	SIC Conference Scheme				
Reference (3)	Sicovam				
Index Membership (2)	lssuer Ticker				
Business Sector Membership (2)	Underlying Issuer Org ID				
Organization Descriptive Data (98)	Valoren				
Instrument Descriptive Data (14)	Wert				
Quote Descriptive Data (12)	Lipper RIC				
Officers and Directors (5)	Add All (38)		1		
Selected Items: TR Lipper DICCode, Drag to					
The second					
=TR(\$A\$2, <b>"TR.LipperRICCode</b> "," <u>CH=Fd</u> <u>RH=IN</u>	CODE=ISIN",C3)				Layout
					Clear All
Consolidate Formulas 🚺 📃 Add data fie	elds as cell references 👔	Update Frequency			Insert
Updated at 10:07:22					
opuated at 10:07:23					
	Lipper RIC				
US04315	5J2096 LP4005006	9			



## 6. Rsearch Functions

Within Eikon Excel, one is able to conduct an advanced search to find specific equities, bonds etc. Here, we would demonstrate how to obtain the RIC of a company.

			_ □
		<del>4</del> Back F	Forward 🔿
Search All Equities Fixed Income Funds F	X & Money Commodities Economic Indicators	Indices	
🖲 Edit Search Criteria 💿 Get Search Criteria from	Cells: Set Range		
Search Criteria			Clear Form
Name or Code: Vodafone		r)	×
Ticker:		ŋ	×
Country: Select Country: [Any]		رم ا	×
Type of Equity: Select Type of Equity: [Any]		5	×
Sector: Select Sector: [Any]		5	×
+ Add Criteria • Search			
1 - 5 of 5 🛨 Create List 🖃 Create Function 🛛 Ad	ivanced Sort		1
🔄 Send Custom 🔻 5 results Option	15 +		
Name	Exchange	RIC	Market Ca (USD)
	London Stock Exchange	VOD.L	79,673
Vodafone Group PLC	National Stock Exchange of India		
Vodafone Group PLC Vodafone India Ltd	National Stock Exchange of India	VODA.NS	
Vodafone Group PLC Vodafone India Ltd Vodafone Qatar QSC	Doha Securities Market	VODA.NS VFQS.QA	2,403
Vodafone Group PLC Vodafone India Ltd Vodafone Qatar QSC Fjarskipti hf	Doha Securities Market OMX Nordic Exchange Iceland hf	VODA.NS VFQS.QA VOICE.IC	2,403 96



## 7. Linking to PowerPoint

Updated at 10:07:22			
		Bid	Ask
	GBP=	1.3339	1.3343
	EUR=	1.1102	1.1106
	SGD=	1.3464	1.3467





## 8. Historical Price Retrieval

😑 FORMULA BUILDER					= _ □ ×	¢
Instruments: STEL.SI Search Instruments					TR	
🔻 DATA ITEMS 🏥 🛃 Interval: Daily 🗸	price				R	
Top Matches (20)	Price Close	Description	Param	eters & Quick	Functions	
<ul> <li>Real Time (473)</li> </ul>	Price / EPS (SmartEstimate ®)	Parameters:			🖌 Series	
Price & Volume (271)	Price To Sales Per Share (Daily Time Series Ratio)	Start - End $ \smallsetminus $	From	-1Y	$\sim$	
Reuters Fundamentals (28)	Price To Cash Flow Per Share (Daily Time Series Ratio)		То	OD	$\sim$	
Period End Ratios (104)	Price Target - Mean	Freq	uency	w	$\sim$	
Time Series Ratios (25)	Price 52 Week High		Scale	0	~	
<ul> <li>I/B/E/S Estimates (604)</li> </ul>	Price 52 Week Low	Cur	rrency	Default	$\sim$	
StarMine Models & Analytics (46)	P/E (Daily Time Series Ratio)		_l ag		~	
Corporate Actions (9)	Price To Book Value Per Share (Daily Time Series Ratio)		Lag	Malue		
Mergers and Acquisitions (7)	Insider Transaction Price		Jutput	value	Show Less	
<ul> <li>Ownership (12)</li> </ul>	Price Code 2	▼ QUICK FUNCTIONS			?	
	Add All (20)					
Selected Items: TR.PriceClose Drag to Reor						
=TR("STEL.SI", "TR.PriceClose ", "SDate=-1Y EDa	ite=0D Frq=W <u>CH=Fd RH=IN</u> ",B2)				Layout	
					Clear All	
Consolidate Formulas 📔 📃 Add data fie	Ids as cell references 🚹 Update Frequency				Insert	

Pull up price for singtel for the past year

- 1. Formula Builder
- 2. Series
- 3. Start-end
- 4. -1Y (one year ago) FROM
- 5. 0D (latest trading day) TO
- 6. Interval (e.g. W)
- 7. Layout show date/calc date

# CALC DATE: DATE REGARDLESS WHETHER IT IS TRADED THAT DAY (1W interval regardless of Public Holiday)

DATE: DATE THAT THE VALUE WAS TRADED



#### Chapter 8: Introduction to Eikon Excel

	out				
AV	AILABLE HEADERS		COLUMNS (CH)	ROWS (RH)	
	Instrument Currency Description Name Display Name ude NULL parameter nspose	Drag Constant Reset	Field	Date Calc Date	
Sorting Destina	) Order: + 🚺 Drag to I ation Cell: B2 🗙 🗮 👔	Reorder. Go to Ol			
	в		с	D	
				D Price Close	
	B 07/03.	/2015	C 07/03/2015	D Price Close 4.2	
	B 07/03. 07/10.	/2015 /2015	C 07/03/2015 07/10/2015	D Price Close 4.2: 4.2:	
	B 07/03 07/10 07/16	/2015 /2015 /2015	C 07/03/2015 07/10/2015 07/17/2015	D Price Close 4.2 4.2 4.3	
	B 07/03 07/10 07/16 07/24	/2015 /2015 /2015 /2015	C 07/03/2015 07/10/2015 07/17/2015 07/24/2015	D Price Close 4.2 4.2 4.3 4.3	
	B 07/03 07/10 07/16 07/24 07/24	/2015 /2015 /2015 /2015 /2015	C 07/03/2015 07/10/2015 07/17/2015 07/24/2015 07/31/2015	D Price Close 4.2 4.2 4.3 4.3 4.3 4.3	
2 3 4 5 6 7 	B 07/03 07/10 07/16 07/24 07/31	/2015 /2015 /2015 /2015 /2015	C 07/03/2015 07/10/2015 07/17/2015 07/24/2015 07/31/2015	D Price Close 4.2 4.3 4.3 4.3 4.3 4.0	
2 3 4 5 6 7  54	B 07/03 07/10 07/16 07/24 07/31 06/24	/2015 /2015 /2015 /2015 /2015 /2016	C 07/03/2015 07/10/2015 07/17/2015 07/24/2015 07/31/2015 06/24/2016	D Price Close 4.2 4.2 4.3 4.3 4.3 4.0 3.8	
2 3 4 5 6 7  54	B 07/03. 07/10. 07/16. 07/24. 07/31. 06/24.	/2015 /2015 /2015 /2015 /2015 /2016	C 07/03/2015 07/10/2015 07/17/2015 07/24/2015 07/31/2015 06/24/2016	D Price Close 4.2 4.2 4.3 4.3 4.0 3.8 3.8	5 9 1 9



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		Price Close			
3/7/2015	3/7/2015	4.25			
10/7/2015	10/7/2015	4.29			
16/7/2015	17/7/2015	4.32			
24/7/2015	24/7/2015	4.34			
31/7/2015	31/7/2015	4.09			
6/8/2015	7/8/2015	4.06			
14/8/2015	14/8/2015	4.06			
21/8/2015	21/8/2015	3.94			
28/8/2015	28/8/2015	3.8			
4/9/2015	4/9/2015	3.69			
10/9/2015	11/9/2015	3.72			
18/9/2015	18/9/2015	3.8			
25/9/2015	25/9/2015	3.64			
2/10/2015	2/10/2015	3.56			
9/10/2015	9/10/2015	3.85			
6/10/2015	16/10/2015	3.94			
3/10/2015	23/10/2015	4.02			
0/10/2015	30/10/2015	3.98			
6/11/2015	6/11/2015	3.92			
3/11/2015	13/11/2015	3.86			
0/11/2015	20/11/2015	3.89			
7/11/2015	27/11/2015	3.8			
4/12/2015	4/12/2015	3.82			
1/12/2015	11/12/2015	3.84			
8/12/2015	18/12/2015	3.76			
4/12/2015	25/12/2015	3.66			
1/12/2015	1/1/2016	3.67			
8/1/2016	8/1/2016	3.55			
15/1/2016	15/1/2016	3.56			
22/1/2016	22/1/2016	3.46			
29/1/2016	29/1/2016	3.51			



# 9. Retrieval (different fiscal year end)

😑 FORMULA BUILDER			= _ <b>_</b> ×
Instruments: 7203.T 005930.KS Search Ir	struments		TR
🔻 DATA ITEMS 🚼 🗹 Interval: Daily 🗸	Search Data Items		R
Price & Volume (334)	Total Revenue	Description Param	neters & Quick Functions
Reuters Fundamentals (1544)	Bank Total Revenue	Parameters:	Series
General Information (42)	Normalized EBITDA	Last $\checkmark$ 5 $\stackrel{\wedge}{\checkmark}$	FY v
Standardized Income Statement (297)	Normalized EBIT	Scale	6 ~
Standardized Balance Sheet (343)	Normalized Income Avail to Cmn Shareholders	Roll Periods	True 🗸
Standardized Cash Flow (105)	Normalized Income After Taxes	Align Type	PrelimDate ~
Income Statement KPIs (153)	Normalized Income Before Taxes	Reporting State	Rsdt
Balance Sheet KPIs (99)	Income Avail to Cmn Shareholders Incl Extra	Currency	Default
<ul> <li>Business and Geographic Segments (106)</li> </ul>	Income Avail to Cmn Shareholders Excl Extra		Single
Private Company Fundamentals (399)	Net Income Incl Extra Before Distributions	Interim Type	
Period End Patios (1464)	Net Income Before Extraordinary Items	Methodology	InterimSum
	Add All (237)	Output	Value 🗸 🖬
Selected Items: TR.TotalRevenue Drag to Re			
=TR("7203.T;005930.KS","TR.TotalRevenue(Sca	Ile=6) ","SDate=0 EDate=-4 Period=FY0 Frq=FY CH=Fd;IN RH=rfp	period",B2)	Layout
			Clear All
Consolidate Formulas 🚺 🗌 Add data field	ds as cell references I Update Frequency		Insert



	out		×
A۱	AILABLE HEADERS	COLUMNS (CH)	ROWS (RH)
Fina	Date Drag Calc Date Drag Period End Date Currency Reset Description Name	Field Instrument	Financial Period Relative
Incl	lude NULL parameter NA	v	
Sorting Destin	g Order: + 🚺 Drag to Reorde		
2		C Total Revenue	D Total Revenue
2 3		C Total Revenue 7203.T	D Total Revenue 005930.KS
2 3 4	B FY0	C Total Revenue 7203.T 28403118	D Total Revenue 005930.KS 200653482
2 3 4 5	B  FY0 FY-1	C Total Revenue 7203.T 28403118 27234521	D Total Revenue 005930.KS 200653482 206205987
2 3 4 5 6	B FY0 FY-1 FY-2	C Total Revenue 7203.T 28403118 27234521 25691911	D           Total Revenue           005930.KS           200653482           206205987           228692667
2 3 4 5 6 7	B 	C Total Revenue 7203.T 28403118 27234521 25691911 22064192	D           Total Revenue           005930.KS           200653482           206205987           208692667           201103613
2 3 4 5 6 7 8	B FY0 FY2 FY-1 FY-2 FY-3 FY-3 FY-4	C           Total Revenue           7203.T           28403118           27234521           25691911           22064192           18583653	D           Total Revenue           005930.KS           200653482           206205987           228692667           201103613           165001771

Updated at 10:07:23

	Total Revenue	Total Revenue
	7203.T	005930.KS
FY0	28403118	200653482
FY-1	27234521	206205987
FY-2	25691911	228692667
FY-3	22064192	201103613
FY-4	18583653	165001771



# 10. Specific data retrieval

Function Arguments			8	23
TR				
Universe	\$A3	=	"005930.KS"	
Data Item	"TR.TotalRevenue(Period=#1,Sc? 🎼	=	"TR.TotalRevenue(Period=#1,Scale	
Options		=		
Destination Cell		=		
Arg 1	D\$1	=	"FY-2"	-
		=	228692.667	
Returns the values of one or to further refine your reque	r more data items, for one or more instru st(s).	Imer	ts. Parameters can be applied to the data i	tems
	Universe Are the list of identifiers t	hat	can be pulled in from a portfolio, list, or ind	ev or
	manually typed in for the	fina	ncial instruments you want to retrieve.	
Formula result = 228692.6	67			
Help on this function			OK Cance	ł

Example formula: =TR(\$A2,"TR.TotalRevenue(Period=#1,Scale=6)",,,B\$1)

Press "Refresh Worksheet"

	FY0	FY-1	FY-2	FY-3	FY-4
7203.T	28403118	27234521	25691911	22064192	18583653
005930.KS	200653.5	206206	228692.7	201103.6	165001.8



## 11. Data Audit Function

To enable: Eikon Excel> Options> Settings> Data Retrieval> Enable Click-through auditing Right Click on the Value --> Thomson Reuters Eikon --> Data Audit Can view the formula available for the calculation of the value

😑 Data Audit							
Singapore Telecommunications Ltd - ROE Common Equity %, TTM							
▼ RETURN ON COMMON EQUITY (INC. AVAIL. TO COMMON EXCL. XO ITEMS), TTM (MAR-16) 15.6%							
Return on Common Equity (Inc. Avail. to Common Excl. XO Items, TTM Excl. XO Items), TTM       Inc. Avail. to Common Excl. XO Items, TTM       x 100         Excl. XO Items), TTM       Avg. Common Eq., TTM       x 100       SGD 24,850MM       x 100	0						
BLUE TEXT = CLICK TO AUDIT							

In order to identify which data items have Data audit: Use Autocolor "On Thomson Reuters Content with Click through"

즹 AutoCol	or				
Auto font c	olor rules:				
On	Pure Text				
On	Pure Numbers				
On	Text and Numbers				
On	Formula with no Reference to Another Cell				
On	Formula with Reference to Another Cell				Red: 47
On	Mixture of Text, Formula and Numbers				Green: 114
On	Thomson Reuters legacy formulas				Blue: 255
On	Thomson Reuters Datastream formulas				Clear RGB values
On	Source for Linked Text				
On	Thomson Reuters Content				
On	Thomson Reuters Content with Click through				
On	Thomson Reuters Delayed Real Time Content				
On	Content imported from a PDF file				
✓ On/Off	All	Reset	All		
Enable A	utoColor				OK Cancel



Data Audit Function	
STEL.SI	15.57663
DBSM.SI	1.72953
OCBC.SI	0.36006
UOBH.SI	2.98E+10
SPRM.SI	0.725295



Part 9: Introduction to DataStream on Excel



## 1. Overview

This short introduction will only serve as a simple guide to the DataStream feature available on Eikon Excel. For a more in depth understanding, please refer to the full **Thomson Reuters DataStream** User Manual instead.

To use DataStream for Microsoft Office Excel, use the **Thomson Reuters DataStream** menu in your Excel application.

In the Thomson Reuters tab, press on the Offline button to log in. Ensure that the button now shows Online before proceeding.

At the Thomson Reuters DataStream tab within Eikon Excel, the following options can be found.

Home Ins	ert Page Layout Fo	ormulas Data Revie	w View Developer	Get Started	Thomson Reuters	Thomson R	Reuters Datastream		
Static Request	🍿 Manage Requests 👻	New Request Table 🔻	👸 Sample Sheets	🚹 Chart	👩 Refresh Charts 😁		🍓 Help 🔹		
Time Series Request	📑 Edit Request	😳 New UCTS-RT Sheet	L3+ Expression	🗐 Library	🚽 Edit		🚯 Contact Us	No.	
Find Series 🔻	😊 Refresh Data 🔻	🚰 UCI Manager 👻	🔢 Lists (Create from Range) 🔻	🖶 Manage	🚹 Run Template	Report		Options	Extranet
Series Requests	Manage Requests	Templates	Utilities		Charts		Help	Options	Extranet

We will only be looking at 4 of these options in detail.

1. Static Request

Static Request

The static request function allows you to request data for a specific date. For example, the price, PE or dividend yield for Apple on 14/01/1994.

Static Requests are also mostly utilised to pull up information about an instrument, such as sector information, and other identifiers such as ISIN and Sedol Codes.

#### 2. Time Series Request

Time Series Request

The time series request function allows you to request data over a specific data, defined by a start date, end date and frequency of data. For example, you can check the daily price of Apple from 14/01/1994 to 12/04/1994.

#### 3. New Request Table

🕎 New Request Table 👻

Users can consolidate their list of requests and organize them from here.

- Chart

A visual representation of the time series data can be obtained. Economic indicators and their respective charts can also be generated.





^{4.} Chart

# 2. Static Request

Static Request	- I I I I I I I I I I I I I I I I I I I
Request Details	
Series/List 1 RIC	▼ Find Series     Image: Weight of the series       Image: Weight of the series       Image: Weight of the series
Datatypes/ Expressions	▼ ■ Datatypes
Options Display Custom Header Edit 5 Display Row Titles Display Column Titles	<ul> <li>Display Expression</li> <li>O Description</li> <li>Number</li> </ul>
<ul> <li>Display Headings</li> <li>Transpose Data</li> <li>Display Code</li> </ul>	<ul><li>Display Datatype</li><li>O Description</li><li>Mnemonic</li></ul>
<ul> <li>Display Currency</li> <li>Display Latest Value First</li> <li>Hyperlink to Series Metadata</li> <li>Hyperlink to Datatype Definition</li> </ul>	Embed Formula
Help Default Option	Submit Cancel

There are 5 main pieces of data that you would require to key in when using the **Static Request Function.** 

- 1. Series/List
- 2. Datatypes/Expressions
- 3. Currency
- 4. Date
- 5. Options



#### Series/List

Here, you would need to specify the instrument that you wish to enquire about.

Other than typing in the name of the issuer, there are 3 ways for you to search for the instrument.

Firstly, you could key in the RIC (Reuters Instrument Code) if you are familiar with the shorthand.

E.g. If you know the RIC code for Apple (AAPL.O), you do the following.

Static Request	X
Request Details	
Series/List 🔐 AAPL.O	Find Series
RIC RIC	RE History

Tick the RIC box and type in the RIC of the instrument you require. Lists could be entered by separating RICs or DataStream codes with a comma. ","

Secondly, you could key in the DataStream Instrument Code as follows, (E.g. @AAPL)

📀 Static Request										23
Request Details										
Series/List	@AAI	PL ;						•	Find Series	
hirdly, if you do n	ot knov	v ei	ther	, you	could search for i	t by pressi	ing on	the 📒	Find Series but	to
📀 Datastream Navigator										8
BACK EXPLORE RECENT SEARC	CHES USE S	EARCH F	REF S	SEARCHING	HINTS SYNCHRONISE USER DATA	CHARTING HEL	Р		NAVIGATO My Selections (I	) <b>R</b> D)
Refine Search		Sug	gestio	n						
Category	+/-	Show	ving res	ults from Al	Categories.					
Options	17,396	Did y	ou mea	n: results f	iltered to Equities ? (30 matches)					,
Warrants	12,619	Rest	ults for	apple					1-10 of 31,533 Next	>
Economics	1,281				Name	Symbol	Category	Market	Origin	
Futures	93	1		***	APPLE	@AAPL	Equities	United States	NASDAQ	
Bonds & Convertibles Equities	77 30	>		***	APPLE HOSPITALITY REIT	U:APLE	Equities	United States	NYSE	
Unit Trusts	12	>		***	APPLE FLFR.GP.'A'	CN:AFG	Equities	China	Shanghai	
Credit Default Swaps	11	>		***	APPLE GREEN HOLDING	@AGPL	Equities	United States	Non NASDAQ OTC	
Constituent Lists	7	>		***	APPLE RUSH	@APRU	Equities	United States	Non NASDAQ OTC	
Commodities	6	>		***	APPLE CAPITAL	C:ALE	Equities	Canada	TSX Ventures	
Equity Indices	1	>		***	APPLE FINANCE	IN:APE	Equities	India	BSE Ltd	
Display Results		> >		***	APPLE INTERNATIONAL GOLDEN APPLE OIL & GAS	J:APPI @GAPJ	Equities Equities	Japan United	Tokyo Non NASDAQ OTC	
Grouped by Category		>		**	Apple Computer Com Continuous	AAQ\$C.SERIESC	Options	States United	Options Price Reporting	
Changes on Datastrea	m				Can			States	Additionally	
Visit Infobase – the revamped and u Datastream Extranet亿	pgraded			Price	(Adjusted-Default)	Apple Mnemonic Cod @AAPL 992 Local Code U03783310	le RIC 816 AAPL.	T1 Code O AAPL-US	SEDOL ISIN 2046251 US0378331005	





Double click the symbol of the instrument or click on the box and press Use.

#### Datatypes/Expression

In this box, the specific type of data necessary could be selected.

Datatypes/ Expressions	fx	▼ 💽 Datatypes
	\$	×1

By default, if the box is left blank, the default data (e.g. price) of the instrument would be provided.

However, you could instead enter the different datatypes if you know the code. Lists could also be entered by separating each datatype with a comma.

For example, commonly used datatypes include **PE** (Price-to-earnings ratio) and **EPS** (Earnings per Share).

Alternatively, you could similarly use the **DFO Navigator** by selecting the **Datatypes** button.

Oatastream Navigator BACK USE SEARCH REF HELP	-					-	-	_	
Equities     • price to book       X     Search									
Refine Search		Equ	iities (	filtered	i)			📧 1-4 of 4	Sort by Ranking 🔻
Hierarchy		All			Name V		Symbol	Source	Currency
Display Hierarchy		>		**	Price To Book Value		PTBV	Datastream	N
Sispia, mararan,		>		*	MSCI Global Z Book Value To Price		MSGBV	MSCI	N
Туре		>		*	MSCI Price to Book Value		MSBP	MSCI	Y
Time Series	(all)	>		*	Price To Book		FTSPB	FTSE	N
Source	+/-	Click	on rows	above f	or details				

Type in the datatype that you wish to search for and double click on the symbol or click the box next to the name and press use.

#### Currency

Press on the substant button in order to adjust the currency. By default, the currency would be set to the local currency.

#### Date



Choose the Date that you wish to obtain data for. For example, the latest available value is most commonly used.

#### **Options**

Here, you could choose what titles you would want to be generated. Typically, the row and column titles are used.



## 3. Time Series Request

📀 Time Series Request			23
Request Details			
Series/List	1	list	Find Series     History
Datatypes/ Expressions	2		Datatypes
Start Date End Date	-2Y •	Frequency Daily	•
Options Display Custo Display Row Display Colur	om Header Edit 5 Titles nn Titles	Display Expression 1st Series Ist Series & Description	
Display Head	ings Ita	Display Datatype Description Mnemonic	
<ul> <li>Display Curre</li> <li>Display Lates</li> <li>Hyperlink to S</li> </ul>	ncy t Value First Series Metadata	Embed Formula     TS Format     Yearly-Date     Quarterly-Date	
Display Curre Display Lates Hyperlink to Hyperlink to Help	ncy t Value First Series Metadata Datatype Definition	Embed Formula      TS Format      Vearly-Date      Quarterly-Date      Sub	mit

In order to conduct a time series request, the steps 1-3 and 5 are the same as that of a static request, with the difference being in the  $4^{th}$  step (Start, End Date and Frequency)

- 1. Series/List
- 2. Datatypes/Expression
- 3. Currency
- 4. Start Date, End Date and Frequency
- 5. Options



#### Start Date, End Date and Frequency

When conducting a time series request, you would need to key in the start and end date as well as the frequency required.

The drop down tables are as follows,



Alternatively, you could key in the actual dates in the DD/MM/YY format as shown above. This would generate the table of figures as follows.

Name	APPLE	APPLE - EARNINGS PER SHR	APPLE - PER
14/1/2016	99.52	9.22	10.8
21/1/2016	96.3	9.22	10.4
28/1/2016	94.09	9.22	10.2
4/2/2016	96.6	9.42	10.3
11/2/2016	93.7	9.42	9.9
18/2/2016	96.26	9.42	10.2
25/2/2016	96.76	9.42	10.3
3/3/2016	101.5	9.42	10.8
10/3/2016	101.17	9.42	10.7
17/3/2016	105.8	9.42	11.2
24/3/2016	105.67	9.42	11.2
31/3/2016	108.99	9.42	11.6
7/4/2016	108.54	9.42	11.5
14/4/2016	112.1	9.42	11.9



## 4. Request List

### **Constituent List of Equity Indices**

Before discussing how to use the request list function on DataStream, let's explore how to view data for constituents of an index.

For example, the Hang Seng Index in Hong Kong trades with the DataStream code <**HNGKNGI**>. In order to generate the data for the list of constituents that make up the index, one can add an "L" in front of the DataStream code. Hence, the data for the constituents has the code <**LHNGKNGI**>

However, it would be good to note that DataStream cannot generate data for a time series constituent list (TS). Instead, utilise the TSL to create a list for constituent list.

## Static Request (Constituent List)



Here are the steps in order to generate a request list as shown above.

1. In the first column, press Y for Yes to automatically update the table with the live values. Alternatively, press N for No.

2. In the second column, indicate the type of request necessary, by pressing the buttons in grey

- S Static request
- TS Time series request
- TSL Time series for lists
- L List request
- C Chart request

3. In the third column, indicate the format required. (i.e. Row, Column = RC)

- F Custom Header
- R Row Titles
- C Column Titles
- H Request Headings
- T Transpose returned Data
- \$ Include currency
- X Data only
- E Display expression 1st series as title
- N Display expression title as title
- K Hyperlink to Series metadata
- B Hyperlink to Datatype definition
- M Display Code
- L Latest Value First
- Y Display dates in Yearly Format
- Q Display dates in Quarterly Format



4. In the fourth column, indicate the datatype required. Use the Datatypes search if you are not sure what the shorthand is.

5. For a static request, the start date could be -1M or -1D or the specific date and no end date or frequency is required.

6. In order to generate the data in a separate sheet, create a new sheet, and highlight the data from the "Update" column to the "Data Destination Column". Next, press the Data Destination button.

7. Lastly, press the Process Table button for the table to be generated.

Type	NAME	PE	Type	NAME	PB
HNGKNGI	HANG SENG	10.28	70899K	AIA GROUP	42.7
			26030V	BOC HONG KONG (HDG.)	22.2
			35968W	BANK OF CHINA 'H'	3.11
			951410	BANK OF EAST ASIA	24.25
			31203N	BANK OF COMMS.'H'	4.87
			50520M	BELLE INTERNATIONAL HDG.	5.41
			31988F	CHINA CON.BANK 'H'	4.82
			998511	CITIC	11.84
			9507UZ	CHEUNG KONG PR.HDG.	46.15
			930492	CK HUTCHISON HOLDINGS	97.85
			887014	CHEUNG KONG INFR.HDG.	71
			929593	CLP HOLDINGS	63
			256842	CNOOC	7.29
			729076	CATHAY PACIFIC AIRWAYS	12.98
			28201C	CHINA LIFE INSURANCE 'H'	20.95
			315805	CHINA MRCH, HDG, INTL	21 65
			867874	CHINA MOBILE	81 25
			316071	CHINA OS.LD.& INV.	22.4
			887449	CHINA RESOURCES LAND	18.1
			27962U	CHINA RES.POWER HDG.	13.96
			31162D	CHINA SHENHUA EN.CO.'H'	11.36
			280949	CHINA UNICOM (HONG KONG)	8.64
			314060	GALAXY ENTERTAINMENT GP.	21.55
			929610	HONG KONG AND CHINA GAS	14.56
			280037	HONG KONG EXS.& CLEAR.	179.7
			923812	HSBC HOLDINGS	56.2
			951407	HANG LUNG PROPERTIES	15.68
			929594	HANG SENG BANK	133.7
			997697	HENDERSON LD. DEV.	42.9
			675810	HENGAN INTL.GP.	66.2
			41271W	INDL& COMLBK.OF CHINA 'H'	4.15
			755101	KUNLUN ENERGY	5.74
			362033	LENOVO GROUP	6.72
			315769	LI & FUNG	4.55
			298493	LINK RLEST.INV.TST.	44.85
			264718	MTR	36.4
			29042F	CHINA MENGNIU DAIRY	11.28
			930223	NEW WORLD DEV.	6.81
			280366	PETROCHINA 'H'	4.48
			29091W	PING AN INSURANCE 'H'	36.3
			929595	POWER ASSETS HOLDINGS	70.35
			929146	SUN HUNG KAI PROPERTIES	89.35
			68341V	SANDS CHINA	22.25
			997310	SINO LAND	10.2
			266578	CHINA PTL.& CHM. 'H'	4.22
			916546	SWIRE PACIFIC 'A'	76.75
			29061M	TENCENT HOLDINGS	137
			865347	TINGYI CYMN.ISLE.HLDG.	9.23
			51780L	WANT WANT CHINA HOLDING	4.91
			929597	WHARF HOLDINGS	38.75

A table as follows would then be generated, with the P/E ratio in one column and the list of constituents and the price in another.



### Time Request (Request Table)

To perform a time request, similar steps could be taken. However, constituent lists cannot be generated for time request lists.

Process Tabl	ASON REUTERS DA		EAM [®]	DFORequestTable 3.0	On O Pre- On O On O	Dpen Request Macro: Completion Completion:	Process Table Refresh Charts Refresh Charts	; Template	Display Deta	ils options with AFC encin	Suppo	rt RTCH Reference Style y Destination as an Excel formula ess Comment: "not available" string
Update		Format	- <b>- - -</b>			🎙 🚅 🛛 Da	atatype/Expression	5	Start Date	End Date	Freq	
Y YN N	S TS TSL L C	H Select Format	Find Series	<u>19</u>	I 🔟	Datatypes	R)	fx			Daily •	Data Destination
YES	TS	RC	HNGKNGI			PE			14/01/2016	12/04/2016	WEEKLY	Sheet1"\$A\$1

Take note that for a time request, the start date, end date and frequency must be entered.

As a result, a table as follows can be generated.

Name	HANG SENG - PER
14/1/2016	8.01
21/1/2016	7.51
28/1/2016	7.78
4/2/2016	7.81
11/2/2016	7.55
18/2/2016	7.89
25/2/2016	7.77
3/3/2016	8.17
10/3/2016	8.27
17/3/2016	8.84
24/3/2016	9.31
31/3/2016	10.15
7/4/2016	9.9

A request list is useful for consolidating all the inputs of every request created on the file and can allow users to quickly locate the data that they are looking for.

Even though there are additional functions for the different request types, we will not cover it in the course of this short introduction.



## 5. Charting

On DataStream, you would be able to plot charts of economic indicators and different datatypes of different instruments.

1. Press the **Chart** button in the Thomson Reuters DataStream tab. Alternatively, in the Eikon Toolbar, search **<CBOOK**.

- 2. Press the 🗋 to open a new chart
- 3. Change the colour scheme Charcoal if necessary (Charcoal or Pearl)

4. In the following box, type the DataStream code, or a keyword to search for the instrument required.



5. If the DataStream code is not known, press the small arrow at the bottom right of the screenshot, and press on **Find New Series**. Search for the necessary series as you have done for "Series/Lists" in the Static and Time Series Request.

6. To change the datatype for individual instruments, click on the arrow located next to the line in the formula



7. Select "Datatype" to change the specific instrument's datatype.





If you wish to change the datatype(s) for multiple instruments, you could do the following.



1. Firstly, press on the arrow and select **Datatypes**. After which, you could either manually enter the Datatype or use the **find new datatype** function.

2. Next, if you want to change the data of the charts, do it in the boxes as follows. You can either insert the period of time or type in the date in the DD/MM/YY format.

Date Range 🕞	
Start -10Y	
End LATEST	

3. If you wish to view the data for the chart plotted, select the **Chart Data** button at the top right hand corner of the page.

4. Sometimes, the data follow different axis (i.e. different currency or one being in absolute price and the other being in percentage). Hence, double click on the line in order to change the details of the line. Here, you can change the colour and weight of the line as well as the name in the legend.

5. If you wish to plot different information, such as the percentage year-on-year change, or the moving

average, you could do so by pressing the 🜆 button below each line.

6. After plotting the line, save the chart by pressing the 🛄 button. (Note that unless you save the chart, you would be unable to export the chart)

7. After which, you are now free to export the chart to different Microsoft Office Applications (Word, Excel, and PowerPoint)

8. If you wish to update the charts in your report or presentations, you could go to the

Refresh Charts V button in the Thomson Reuters tab to update all the charts or individual charts every time you open the file.



For example,

Plot the Year on Year change of the Price-to-Book Value of Apple and Samsung for the last 10 years. Hence, you would key in the following and the chart will be produced.





