



London
Stock Exchange

SWITCH TO MORE ENLIGHTENED TRADING

A guide to Level 2 market data





Switch to more enlightened trading

Sophisticated investors are already using and harnessing the advantages that Level 2 market data provides and now you can too. That's because Level 2 market data is the perfect way to benefit from enhanced levels of in-depth market knowledge.

This guide outlines the advantages of Level 2 market data, the different strategies and the techniques to help you make more informed trading decisions.

For more information visit:

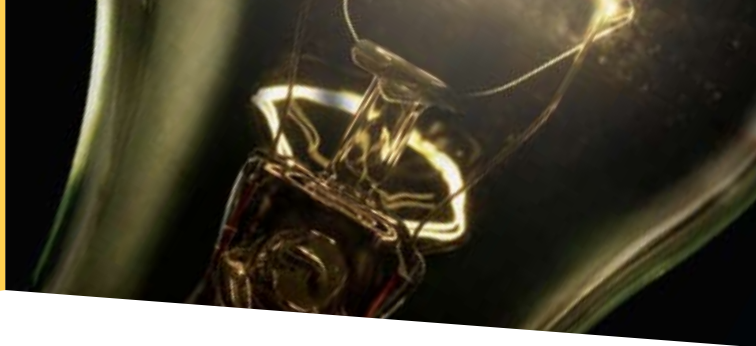
www.londonstockexchange.com/level2

“Level 2 is well acknowledged for its use in trading, and through the further learning of Level 2 strategies, both shorter term traders and longer term investors can benefit from better pricing and new trading opportunities.”

Rakesh Shah
Ten Point Trading Ltd
'Specialising in Trading Strategies'
www.TenPointTrading.com
0845 009 1985

Contents

Introduction	3
What is Level 2 market data?	4-6
Example of Level 1 screen	
Example of Level 2 screen	
Terms and concepts used in Level 2 trading	7-8
Depth of market	
Liquidity	
The time of day you execute your orders	
Bid offer spread changes	
Level 2 market data at auction period	
Direct Market Access (DMA)	
Enhancing your trading strategy with Level 2 market data	8-9
Monitoring the ratio of buyers compared to sellers	
Managing your stop loss level	
Reading support and resistance	
Advanced Level 2 trading strategies	



Introduction

Price information for private investors trading shares in the UK has traditionally been focused around the limited information provided by Level 1 data, mainly the bid, offer, high, low and mid prices. To supplement this, additional Level 2 market data is now available, showing the depth of the market (the actual buy and sell orders for each share in the market). This Level 2 information plays a vital role in trading on today's markets.

To understand Level 2 market data we will need to look at how orders to buy and sell shares are processed. We will begin with a short description of the three principal London Stock Exchange trading platforms and then look at how a Level 2 screen is used to access order information on each of these platforms.

At present, the buying and selling of shares in the UK market is conducted primarily through three main trading platforms:

- **SETS** (Stock Exchange Electronic Trading Service) – electronic execution of orders with integrated market maker liquidity provision.
- **SETSqx** (Stock Exchange Electronic Trading Service – quotes and crosses). Four electronic auctions a day with continuous quote driven market making.
- **SEAQ** (Stock Exchange Automated Quotation System) – display of Market Makers quotes only.

Each listed share is traded on one platform and the chosen platform will depend on factors such as the typical volume of shares traded and the size of the company.

SETS is the automatic order-driven platform for the trading of the constituents of the FTSE All Share Index, Exchange Traded Funds, Exchange Traded Commodities, along with over 180 of the most traded AIM and Irish securities. SETS also offers market making in all stocks including those deemed to be “liquid” under the new Markets in Financial Instruments Directive (MiFID).

SETSqx is a trading platform for securities less liquid than those traded on SETS. It combines a periodic electronic auction book with standalone quote driven market making. Uncrossings are scheduled at 8.00am, 11.00am, 3.00pm and 4.35pm.

The SEAQ platform exclusively allows Market Makers to display bids and offers to the market. There is no facility to trade directly on SEAQ and it is predominantly used for Fixed Interest and AIM securities that are not traded on either SETS or SETSqx.

What is Level 2 market data?

Before we describe what Level 2 market data is, let's have a look at a Level 1 screen. Most Level 1 screens show the current bid and offer for a share, price information such as the current day's high and low, 52-week high and low, and the percentage change from the previous close.

In addition, volume information and the price of the last trade executed are displayed. However, a Level 1 screen doesn't show all the buy or sell orders in a share which is known as the full depth of the order book.

Example of Level 1 screen

Segment	SET1	Sector	FF10	NMS	200,000	ISIN	GB00B16GWD56	C	OBT
Last Trade	136.3 a (b)		At: 10:54	Size: 2,232		LAT	136.3	-0.9(-0.7%)	10:52
Trade HI	137.4		Indicators	NA		LAT HI	137	-0.2(-0.15%)	08:00
Trade Lo	136					LAT Lo	136	-1.2(-0.87%)	10:25
Cum Vol	170,813,454		Trades	1,042		Mid	136.4	-0.8(-0.62%)	
Auto Vol	14,159,303		Auction	137.4		VWAP	136.2		
Pub. Limit	19,800,000		Auc. Vol	417,871		A-VWAP	136.4		
Mkt Cap	£72022.30m					C-VWAP			
PE Ratio	13.6		Yield	4.45%		52Wk Hi	153.5		12-FEB
Ex-div	22-NOV-2006					52Wk Lo	107.75		11-AUG

136.3 - 136.4

Best Bid

Best Offer

Example of Level 2 screen



Orders to **BUY** are placed on the **LEFT**
 Orders to **SELL** are placed on the **RIGHT**
 The **Yellow Strip** connects the best bid and offer



A Level 2 screen shows the full depth of the market by listing the buy and sell orders in a particular share. Throughout the day, orders to buy and sell will be entered, amended and executed. A Level 2 screen allows you to see this in real-time.

In our example of a Level 2 screen you can see two particular orders to buy or sell shares at each price for VOD (Vodafone PLC). For example, there are orders to buy 262,435 shares at 135.9 pence per share and orders to sell 317,907 shares at 136.6 pence per share.

All these orders give you a snapshot picture of the current buying and selling interest for a particular share. Although the screen contains a large amount of detailed information, breaking it down makes it very easy to use. The most important concept to understand is how the information is organised between buyers on the left and sellers on the right of the screen.

The Yellow Strip contains the 'Touch Price' which shows you the current best bid and best offer. We can see that there are orders to buy 254,935 VOD shares in comparison with orders to sell 199,052 VOD shares on the Yellow Strip. This means that you can buy a maximum 199,052 shares in VOD at 136.3 pence. If you wish to buy more, you will have to pay the next best price at 136.4 pence for the additional amount. Level 2 is very dynamic and this situation will change rapidly throughout the day as prices move up and down.

In summary, a Level 2 screen shows a greater depth of data than a Level 1 screen by allowing you to see every bid and offer placed in the market by all market participants. This enables you to better understand how a share price is derived and its possible future direction.



Terms and concepts used in Level 2 trading

Depth of market

This indicates how strong the market is in terms of buyers and sellers. On the buy side (orders to buy shares), this is calculated by adding up the total number of orders to buy shares at each price level. In the Vodafone example we have 128 buy orders totalling 21,196,393 shares. On the sell side we look at the total number of orders to sell shares. In this example, we can see that there are considerably more sellers (359) than buyers (128) at this time.

Liquidity

This describes the total number of buy and sell orders in the market and how fast they are replenished. Good liquidity would indicate there is a large number of shares to buy and sell, at various prices. Thin liquidity can mean there are few buyers or sellers willing to trade in a particular stock. Companies with a large market capitalisation generally have better liquidity in their shares.

The time of day you execute your orders

If you deal in large order sizes, the timing of your trade can significantly impact the price at which you buy and sell shares in the market. Level 2 market data allows you to see the full liquidity, therefore it can help you determine the best time to place your order.

Bid offer spread changes

The bid offer spread is the difference between bid (the price at which you can sell a security) and offer (the price at which you can buy a security). For example, in a stock such as TSCO (Tesco plc), the bid offer spread can typically vary from 0.25 to 0.50 pence.

Watching a Level 2 screen during the day allows you to monitor the average spread. Level 2 market data also gives you the transparency of seeing all of the current orders in the market and can help indicate when the bid offer spread may widen or change as orders get filled. This may offer the opportunity of trading at a better price if the spread is moving in a favourable direction.

Typically, larger capitalised stocks have tighter bid offer spreads and show a greater depth of market. Tighter spreads can also mean reduced dealing costs.

In addition, changes in the bid offer spread can offer short term trading opportunities by placing orders in between the spread via Direct Market Access, which we will describe later.

Enhancing your trading strategy with Level 2 market data

Level 2 market data at auction period

Twice a day before the market opens at 8.00am and at the market close at 4.30pm, all stocks have an auction period. During the auction a Level 2 screen will display orders submitted and give an indicative opening or closing share price. However, no trading occurs until the end of the auction. After the auction, the Level 2 screen shows the opening or closing share price where buyers and sellers meet midway to maximise the volume of shares traded. On the opening auction this will be the first trade of the day and on the closing auction this will be the last trade of the day. Watching the opening price can sometimes present trading opportunities and can often help to guide daily trading decisions.

Direct Market Access (DMA)

Direct Market Access (DMA) is a service offered by some stockbrokers that enables you to place buy and sell orders directly on the London Stock Exchange's electronic order books. With DMA you can buy and sell shares directly with other market participants on the order book by setting your own price. Please note that you will still need to trade via a broker that offers a DMA service and you will also need access to a Level 2 screen to take full advantage of the information offered.

Level 2 market data is now widely available and moving from Level 1 to Level 2 is a natural progression. Both traders and private investors can benefit from using Level 2 market data to trade in ways that were not possible before. There are numerous benefits Level 2 market data can give you and the next sections describe a range of strategies and techniques that can be used when trading.

Monitoring the ratio of buyers compared to sellers

The simplest method to analyse the Level 2 screen is to compare the total number of buy and sell orders for a share. This will need careful analysis, as many of the orders will be too far away from the current price to realistically get executed in normal market conditions. With experience, monitoring the buyer to seller ratio on the Level 2 screen can help to give you a view on the short term prospects of a stock.

Managing your stop loss level

Looking at the total number of buy orders at a particular price point on any given day, allows you to assess the liquidity of a share at that level. This can be very helpful in the management of your stop loss policy. If you can see large buy orders on a Level 2 screen, then you can set your stop loss price at that level. This gives you some degree of confidence that there will be a buyer at your stop loss level, if the price does indeed move lower.

Reading support and resistance

On many Level 2 screens, certain price levels attract large numbers of orders. These clusters can be identified on a Level 2 screen and will often act as support and resistance points depending on whether they are above or below the current price. Matching these with key technical levels can be an effective trading strategy.

Advanced Level 2 strategies

Here are some advanced strategies that, with more experience, you can benefit from:

- Trading by using 'Times and Sales' data (historic trades executed) in conjunction with a Level 2 screen. This enables you to look at the relationship between large executed orders and the subsequent move in a share price and depth of market.
- Reading a Level 2 screen to validate breaks of key technical analysis levels. Breakout trades is a very common strategy for trading markets. Level 2 market data can help you assess if the breakout is real or false.

- Recognising and trading off 'iceberg orders' that can be identified on a Level 2 screen.

An iceberg order is a large single order managed by an exchange that has been divided into equal quantities by the use of an automated program, for the purpose of hiding the actual order quantity. This can hold back the share price at a specific level as the full extent of the order gets executed.

- By understanding supply and demand characteristics on a Level 2 screen you can identify intraday shifts in momentum from strong buying to strong selling. This is seen by rapid shifts from the left to the right side of the order book.

Further learning

The London Stock Exchange has a wide range of products and resources to help you understand the benefits of Level 2 market data.

To find out more about Level 2 market data and where to get it visit:

www.londonstockexchange.com/level2





London
Stock Exchange



Copyright © January 2009 London Stock Exchange plc.
Registered in England and Wales No. 2075721.

London Stock Exchange plc has used all reasonable efforts to ensure that the information contained in this publication is correct at the time of going to press, but shall not be liable for decisions made in reliance on it.

AIM, London Stock Exchange, the London Stock Exchange coat of arms device, and SETS are registered trademarks of London Stock Exchange plc. SETSqx and SEAQ are trademarks of London Stock Exchange plc.

FTSE is a registered trademark of London Stock Exchange plc and The Financial Times Limited and is used by FTSE International Limited under licence.

All other logos are trademarks of their respective owners.

London Stock Exchange
10 Paternoster Square
London EC4M 7LS
Telephone: +44 (0)20 7797 1000
www.londonstockexchange.com

In collaboration with



232/COL/LE2