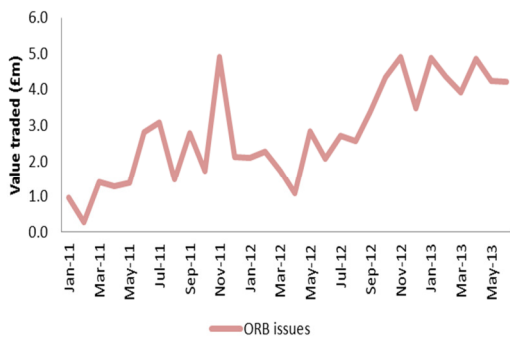


## A weak quarter for the ORB

- Over quarter, FTSE ORB index fell 2.6%
- ORB Index reached all-time high on 2<sup>nd</sup> May
- Volumes for 'ORB issues' rose 14%
- Two new issues during the quarter raising £150m

## Average monthly value traded per issue (adjusted for new issues)



Source: London Stock Exchange, Hardman & Co.  
See Page 7 for volume adjustment.

## RETAIL BOND REVIEW No. 1

- The Order book for Retail Bonds (ORB) was created in 2010, principally to address and widen the opportunities for retail investors to invest in the corporate bond markets. To date there have been 37 issues, raising total funds of £3.41bn.
- The initial listings were largely from companies such as RBS and Tesco Personal Finance, which had broadly similar profiles to existing corporate borrowers. Over time however, the range of companies accessing the market has diversified significantly. Some of the issuers have relatively small market capitalizations, a number have been financial services (including real estate) companies, and the minority have a rating from a recognized credit rating agency.
- Some commentators have given the impression that trading in the aftermarket is thin. The feature article in this first note on the market dispels this myth. Analysis of the trading activity in the market indicates that, after the inevitably slow take off, there has been a very significant increase in retail participation. Although ORB issues (i.e. those issued since the launch of the new market) make up less than one third of the total number of corporate bonds available on ORB, they now account for three quarters of the total number of trades. Electronic trading volume for example has more than trebled in the last twelve months alone.
- It is clear that the creation of the ORB has had a significantly positive effect on overall retail corporate bond market liquidity, with rapidly rising retail participation, particularly on bonds issued in the last three years. This is reflected in the growth in the number of trades and a fall in average trade size leading to greater accessibility for the private investment market.
- Reflecting the growing importance of this market to both retail investors and issuers, Hardman & Co has produced the following detailed report. This work has been undertaken by our financials analyst Brian Moretta.

**Brian Moretta**  
+44 (0)20 7929 3399  
bm@hardmanandco.com



**London**  
Stock Exchange

A range of source data for retail bonds traded on London Stock Exchange, in addition to further information on the ORB market, is available at:

[www.londonstockexchange.com/retail-bonds](http://www.londonstockexchange.com/retail-bonds)

## Introduction

This is the first issue of what will be a regular publication on the retail bond market. Its aim is to offer a comprehensive periodic review of this growing market. As well as providing information on the performance of this security class and a reference on individual bonds within it, each issue will also carry a feature article covering a topical issue. The first edition explores the changing liquidity in retail bonds, a subject which is much misunderstood.

## About Hardman & Co

Hardman & Co is a research company based in London which has been established for nearly 20 years. We have a team of experienced investment analysts which provides research that is distributed globally. Research is undertaken on quoted and private companies as well as individual projects. We cover both equity and bond markets. Sector expertise includes: Agriculture, Building & Construction, Business Services, Education, Financial Services, Healthcare & Biotech, Media, Mining, Oil & Gas and Property and Retail Bonds. Research is only one part of the suite of services which we offer to enable investors and companies to engage with each other.

## Brian Moretta, Financials Analyst

Brian has had a 20 year career in financial services, including over a decade as a fund manager. He started as a trainee actuary, but followed that with a spell in academia, where he completed his actuarial qualification and gained a PhD in Applied Probability. He then joined SVM Asset Management, where he specialised in analysing financial services companies. While there, Brian managed two traded endowment funds and an equity fund, worked on hedge funds and the quantitative risk management function. Since leaving SVM he has followed a pluralist lifestyle, mixing financial/investment consulting with spells lecturing on actuarial science and financial economics.

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## Feature Article: Dispelling the liquidity myths

**Executive Summary:** In this article we analyse corporate bond trading data from 1<sup>st</sup> January 2011 to 30<sup>th</sup> June 2013 to see how liquidity has been influenced by the ORB. In the market as a whole two trends are clear:

*Massive rise in retail trading*

- A massive increase in retail participation with the number of trades each month trebling.
- Overall (i.e. off and on-book) average trade size has fallen, reflecting the growing presence of the retail investor.
- On-book (i.e. electronic) trading has seen a growth in the number of trades and a rapid increase in the average trade size. In fact, trade size has trebled in the last 12 months, demonstrating improved liquidity.

*New issues more liquid & greater retail interest*

We also examine those bonds issued since the creation of the ORB as a subset. This group counts 37 bonds and an issuance of £3.41bn. Compared to the market as a whole these bonds have

- Greater overall liquidity.
- Much bigger retail participation.
- Dominated on-book trading.

Digging deeper into the data we also find that

- Trading volumes in a bond strongly correlate with its issue size.
- For companies that have more than one issue, subsequent issues do not have any long term negative effect on the liquidity of previously issued bonds.

It is clear that the ORB has enhanced corporate bond liquidity, particularly for small investors. For the majority of retail investors, liquidity in most bonds should no longer be a concern.

*ORB created to attract retail investors*

**Background:** The Order book for Retail Bonds (ORB) was created in 2010 to widen participation in two existing markets. The markets in both gilts and corporate bonds had large minimum transaction denominations (typically between £50,000 and £100,000), effectively making them inaccessible to most private investors. To encourage their participation in the bond market, ORB has made a number of smaller denomination instruments available. The minimum denomination of bonds tradable on ORB must be equal to or lower than £10,000, with the majority of the ORB issues tradable in £100 lots.

Inevitably initial liquidity suffered from the challenges that many new markets experience. Most corporate bonds were held by institutional investors with trading taking place infrequently, albeit in significant size when it did. Market-making on the ORB was limited and, at first, demand from retail investors was weak. However, much of that has changed over the last three years. Here we explore the statistics to discover the truth about liquidity today.

**Data:** The data was supplied by the London Stock Exchange and covers the period from 1st January 2011 until 30<sup>th</sup> June 2013. Although the ORB was launched in early 2010, as we indicated above, volumes prior to 2011 were very low. The aggregate data covers all issues and is summarised in the table below:

**Figure 1: ORB market trading 1/1/11 to 30/6/13**

	Total	Gilts (ORB eligible)	Corporates
Number of issues	196	72	120
Total number of trades	1.72m	1.62m	107,355
Value of trades	£15,717bn	£15,704bn	£13.63bn

*Source: London Stock Exchange, Hardman & Co*

*Note: The figures for 'total' are greater than the sum of the two subsequent columns because there are four additional issues from the EIB which are classified as supranational.*

Trades in the new market can take place either “on-book” or “off-book”. Trades “on-book” are transacted through the London Stock Exchange’s electronic system, whilst “off-book” trades are effected directly between brokers. Off-book trading may include some market-making business and the vast majority of institutional trades, which, due to their size, continue to occur mostly on a matched bargain basis as they did before the ORB was created.

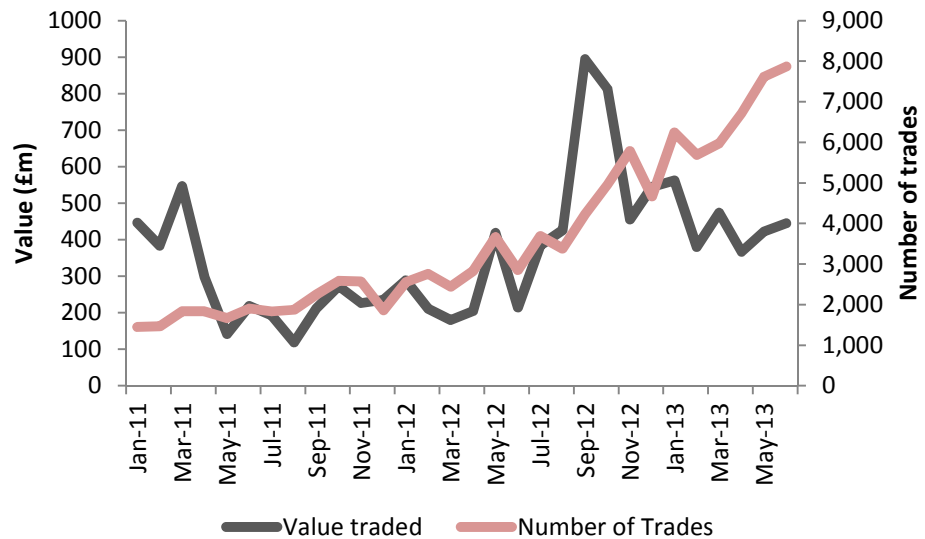
*Gilts not yet significant on-book but big jump in Q1*

Although we focus on corporate bonds here, it is worth briefly mentioning the gilts market. The table above includes the bulk of the gilts market. Very little gilt trading occurs on the ORB book itself – in fact less than 0.04% of the total number of gilt trades. Not only is a small part of gilts trading done through the ORB book, but gilt trades form a small proportion of all on-book trading as well. Up to May 2013 it accounted for about 5% of the number of on-book trades, albeit 23% of the value over the whole period. However, the proportion of on-book trades accounted for by gilts has shown a dramatic increase in 2013, with first quarter volumes eight times those in the same period of 2011. June 2013 saw £81.5m traded, almost twice the value of the preceding 29 months. While this may prove to be a blip, we expect more gilts trading to move on-book over time as investors appreciate the increased transparency it provides. The addition this year of two gilt-edged market makers to the ORB will also encourage this trend.

It is also worth noting that, while some trading volume data sets count buys and sells separately, effectively doubling the actual amounts, the ORB data is all ‘single counted’. The data is a little noisy, with some issues having great variation in trading volumes over the period. Consequently in this article we focus on broad trends rather than individual issues.

**Aggregate data trends:** In the ORB corporate bond market as a whole (i.e. on-book and off-book together) there are some clear trends, as illustrated in Figure 2.

**Figure 2: Total value traded and number of trades each month for corporate bonds**



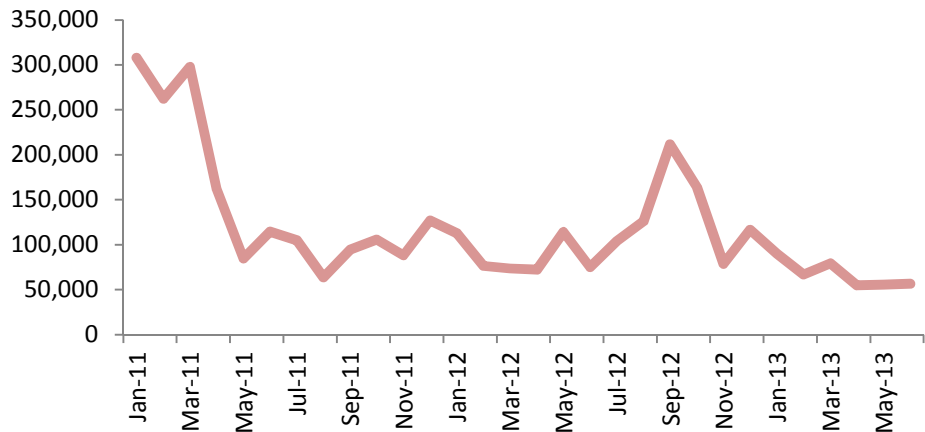
Source: London Stock Exchange, Hardman & Co

*Number of trades increasing much quicker than value traded*

We can see that the overall monthly number of trades in corporate bonds traded has been increasing quickly over the whole period, with current volumes around five times where they were at the start of the period. The trend in the total value traded is less clear. From April 2011 until the start of 2013 the trend in total value traded has been improving, but the levels in the first half of 2013 are about the same as at the start of 2011. However 2013 has seen a slight downward trend appearing.

Nevertheless, what stands out is how much the average trade size has decreased as retail investors have flooded into the market, pushing the average trade down from £289,000 in the first quarter of 2011 to £55,000 in the latest quarter as illustrated in the figure below. Most of that decline took place in 2011, but the trend has continued to be gradually downwards since then.

Figure 3: Average trade size each month for all corporate bonds (£)

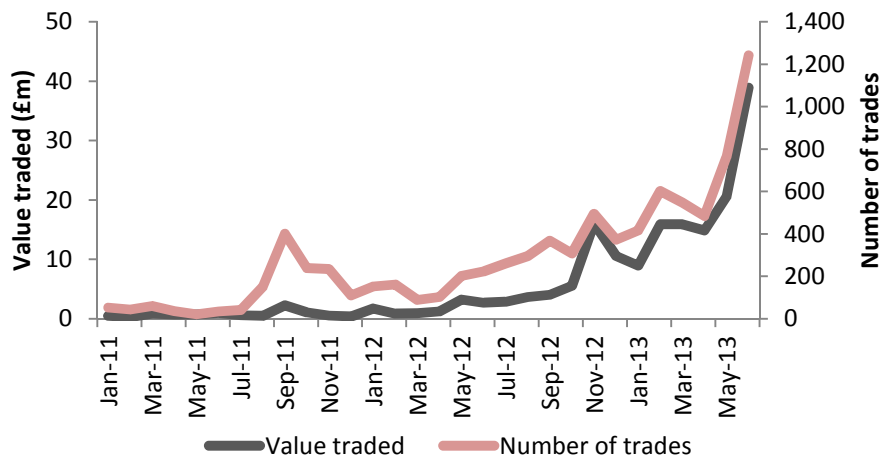


Source: London Stock Exchange, Hardman & Co

**On-book trading in retail bonds:** Volumes on the ORB book are still small compared to the overall market, but are growing rapidly as illustrated in the next figure.

*Value traded now growing faster than number of trades*

Figure 4: Total value traded and number of trades on-book each month for corporate bonds



Source: London Stock Exchange, Hardman & Co

*On-book volumes growing at a rapid rate*

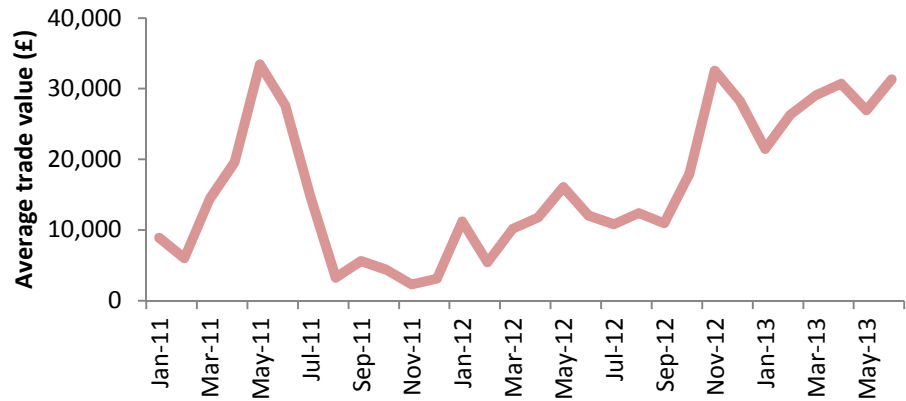
It is clear that both the value traded and the number of trades on-book have grown quickly and steadily, albeit in both cases from a very small base.

As a proportion of the entire corporate bond market on-book trading, by number of trades, has been growing over the period, albeit more slowly over the last twelve months, to about 10% of the total. This figure still represents substantial growth compared to the first half of 2011 when it was 2.5%. The ORB share of trades by value has been smaller, and was 0.1% at the start of 2011. It has grown more quickly over the last year from 0.7% in the first half of 2012 to 4.5% in 2013.

Taking the retail bond market as a whole, the total number of trades has grown from under 1,400 to almost 8,000 per month, with the on-book number recently being around 600 per month. June 2013, however, was exceptional with 1,242 on-book trades, 16% of the total number that month and 9% of the total value traded. From Figures 2 and 4 we can see that the growth in the number of

trades above is not fully accounted for by the order book itself. Average trade size on the book is small, reflecting the predominantly retail nature of trading there, whereas the overall market figures include institutional trading which takes place in larger size. Its on-book development is shown in figure 5.

**Figure 5: Average trade value on-book each month**

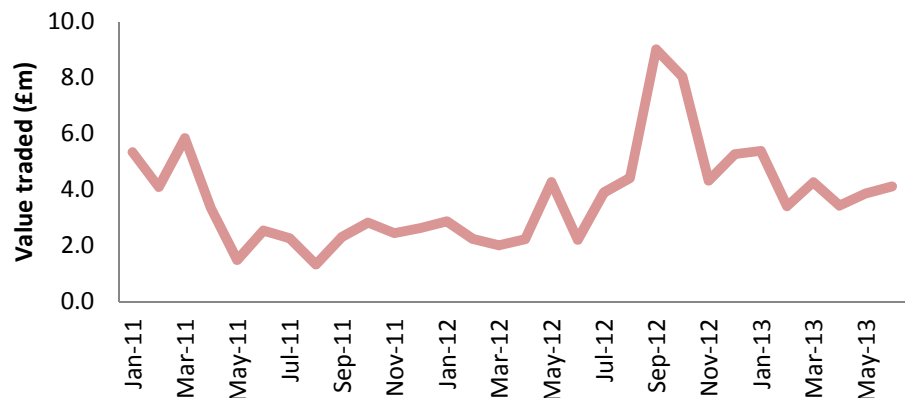


Source: London Stock Exchange, Hardman & Co

*On-book trade size increasing*

Although the second quarter of 2011 saw some unusually large trades, the average trade size has steadily increased since then. We can be confident that much of the increase in off-book volume is due to growing retail demand, but it is not clear if the increased average trade size on-book is due to larger retail investors or if some institutional business is taking advantage of the improved on-book liquidity.

**Figure 6: Average monthly value traded per issue (all corporate bonds)**



Source: London Stock Exchange, Hardman & Co

Figure 6 shows the trend in the average value traded per issue. Like the overall data it shows a gradual, if noisy, increase since the second quarter of 2011. It reassures that the increase in trading volumes is not just due to the increase in the number of issues but reflects a genuine growth in the market.

**New issues liquidity:**

The majority of listed corporate bonds remain issues that were in existence prior to the creation of the ORB. These are predominantly from FTSE100 companies, together with some subsidiaries of international conglomerates and mid-caps. From the launch of the ORB until 30<sup>th</sup> June 2013 there were 37 new bond issues raising a total of £3.41bn (referred to as ‘ORB issues’ below). The

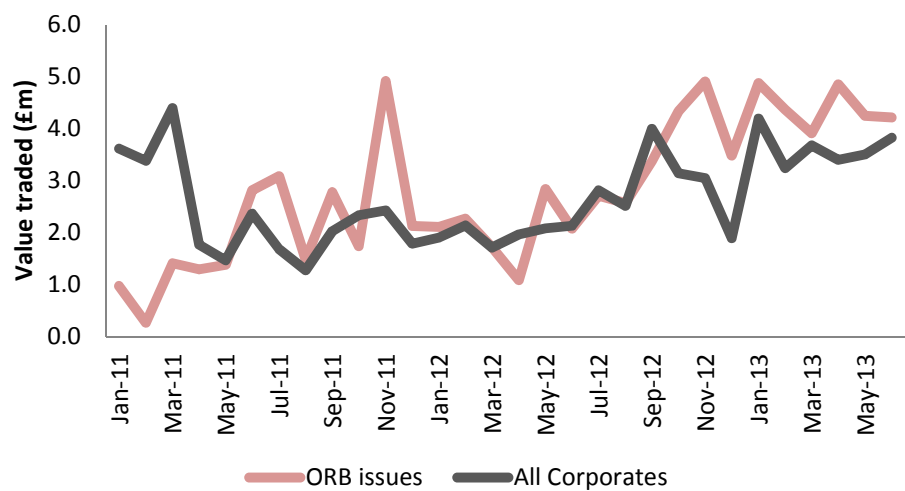
*Nature of issuers is changing*



first companies issuing bonds had a similar profile to the existing issuers, but since then the range of companies has diversified significantly. In particular some new issuers have a smaller market capitalisation, a number have been in the financial services sector / real estate and in a number of instances do not have a rating from a recognised credit rating agency.

In this section we have made an adjustment to some of the data. As there is often higher volume immediately after a bond's issue we have adjusted some of the bonds, mostly 'ORB issues', by removing the first month's trading. This helps ensure that bonds issued during the period don't have inflated volumes relative to existing issues.

**Figure 7: Average monthly value traded per issue (adjusted as noted above)**

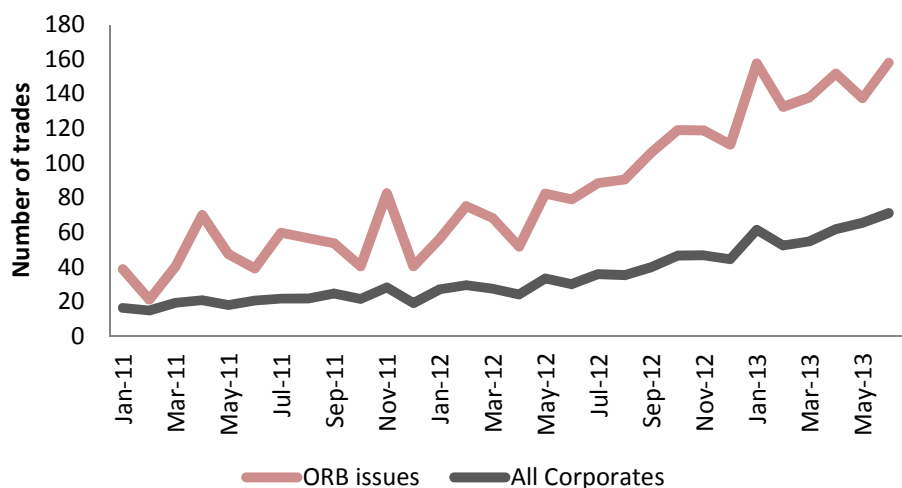


Source: London Stock Exchange, Hardman & Co

*'ORB issues' trading similar values to other corporate bonds*

The chart above shows that, although volumes in these new issues were initially low, they have picked up and overall value traded per issue is now a little higher than for the other corporate bonds. There is an even greater difference in the nature of the trading, as the figure below shows.

**Figure 8: Average number of trades per issue each month (on-book plus off-book) (adjusted)**

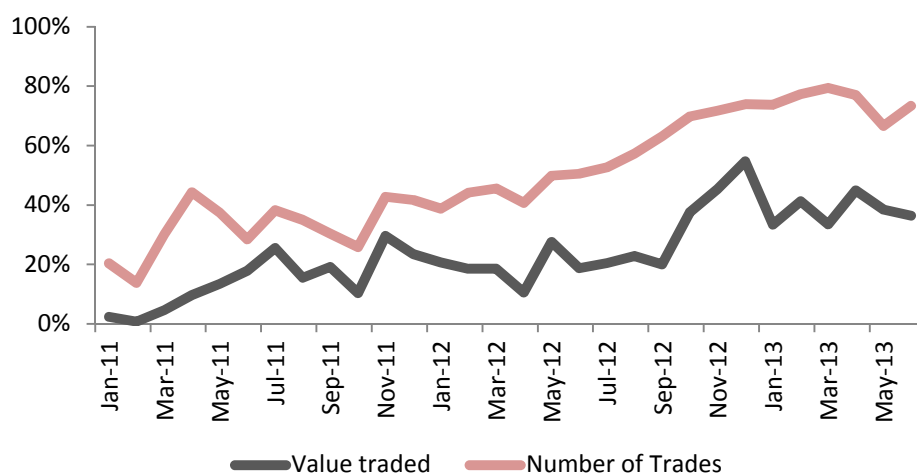


Source: London Stock Exchange, Hardman & Co

*'ORB issues'  
attracting more  
retail investors*

We can see that the new 'ORB issues' have more than twice as many trades per month than the average corporate bond, with a correspondingly lower average trade size. This reflects the higher retail element in the investor base. Another way to consider this is the proportion of trades that the ORB issues have of the total.

**Figure 9: Trading in 'ORB issues' as a proportion of total corporate bond trades (adjusted)**

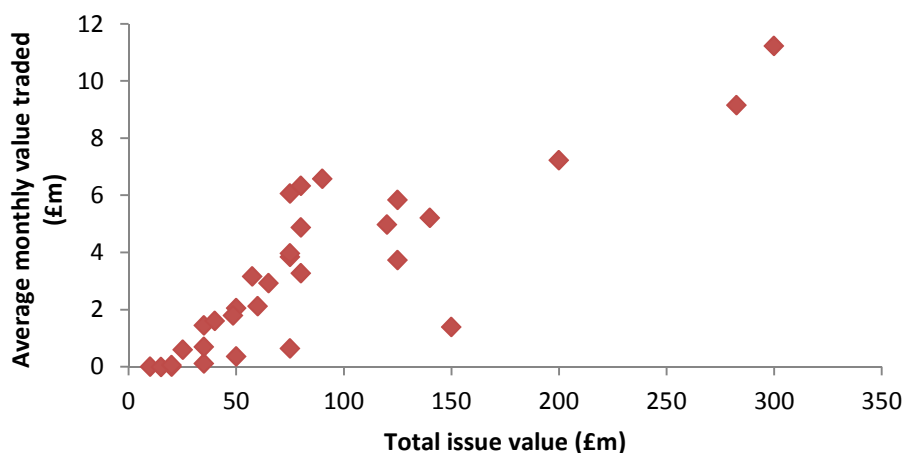


Source: London Stock Exchange, Hardman & Co

We can see that, although the 'ORB issues' make up less than a third of the total number of corporate bonds available on ORB, they now account for more than three-quarters of the number of trades. By value traded the proportion is more in line with the number of issues. This again highlights the different investor base, with retail investors having a greater interest in the newer bonds since they were marketed to this universe at the time of issue. Understandably the on-book figures have always shown the 'ORB issues' having a consistently higher proportion of the trades – 73% of the on-book by number and 80% by value.

**Size does matter:** Finally, we compare liquidity for the ORB issues against issue size. Generally we would expect larger issues to have greater liquidity, and the next figure supports that. Note we have excluded any bonds issued within the quarter for the same reasons we made adjustments in the previous section.

Figure 10: Average monthly value traded in 2Q 2013 against total issue value



Source: London Stock Exchange, Hardman & Co

*Strong relationship  
between issue size  
and trading volume*

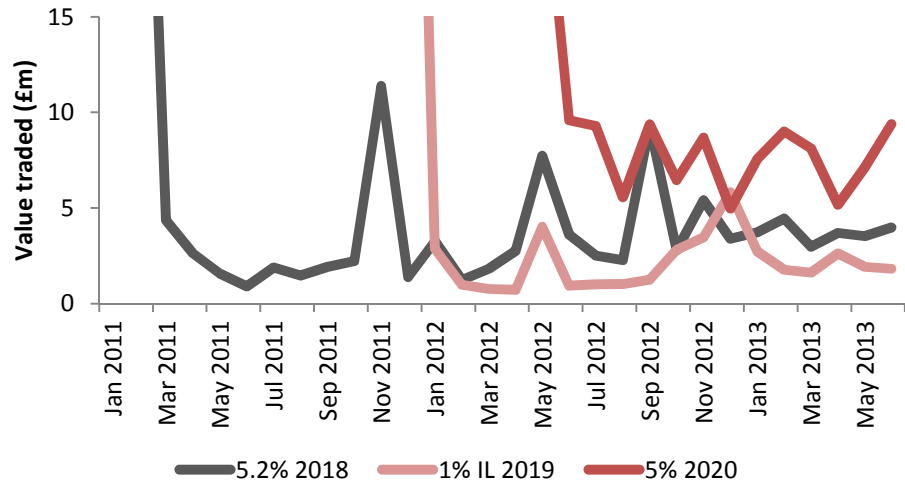
It is no surprise that there is a strong correlation (coefficient of 0.83). It is perhaps worth noting that most of the very small bonds were issued in the early days of the ORB, and so this may also reflect a different, perhaps less retail investor base. The more recent bonds of that size do have better liquidity.

While the relationship of volume with issue size is strong, it should be noted that, despite that, significant differences remain between some issues of similar size. For example comparing two £75m issues over the last quarter, we find that Lloyds 5.375% 2015 on average traded £650,000 per month whilst Primary Health Properties 5.375% 2019 saw over £5m turnover per month.

We also look at the velocity of trading, i.e. the proportion of a turnover's issue turned over each year. On average for the 'ORB issues' in the second quarter of 2013 the annualised rate was 45.4% of issue size. While there remains a wide range between different bonds, this is clearly a healthy volume. There remains scope for future growth – recent reports from the US expressed concern that annualised turnover had dropped below 75% for corporate bonds. Thus there is no reason to think liquidity has reached its limit and cannot continue to improve.

Five companies have multiple issues on the ORB: Royal Bank of Scotland (7 issues), Provident Financial (4), Lloyds TSB (2), Tesco Personal Finance (3) and Places for People (2). We examined the trading in these to see if the presence of a new bond had an effect on the liquidity of an existing issue. Without sight of the evidence some observers might suggest that a new bond would reduce activity in an existing security.

Figure 11: Value traded each month in Tesco Personal Finance bonds



Source: London Stock Exchange, Hardman & Co

*Little effect from new issues on existing*

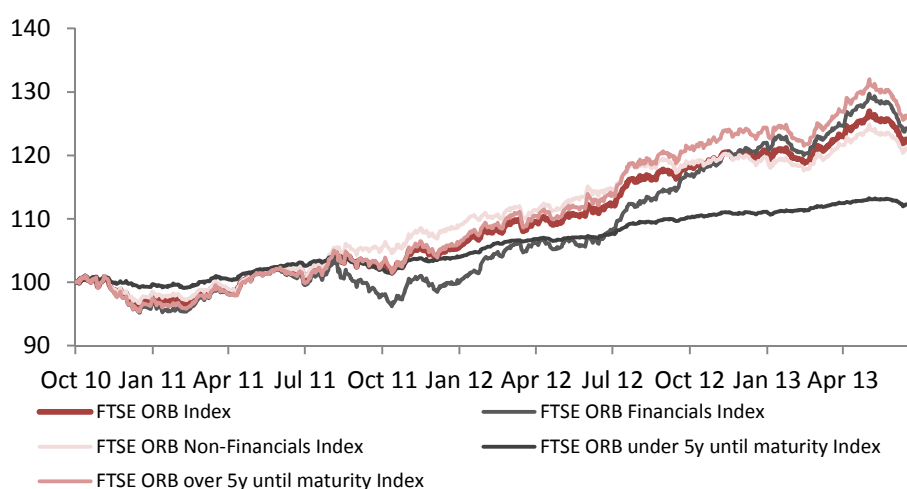
Figure 11, which shows trading in bonds of Tesco Personal Finance, is typical. Although noisy, it can be seen that, other than a short term increase in volume just prior to the issue of the next bond (corresponding to the announcement), the new issues did not have a negative effect. In fact volume has steadily climbed for the existing bonds, albeit in line with market trends. This effect is mirrored in the case of Provident Financial, where the latest issue seems to have had no effect on the previous issues.

**Summary:** It is clear that the creation of the ORB has had a significantly positive effect on bond liquidity. There is growing retail participation, particularly in the bonds issued over the last three years. This has led to a rapid growth in the number of trades and a fall in average trade size, making the market far more accessible to the retail investor. For new issues there has been the benefit of greater on-going liquidity compared to longer standing bonds.

Although on-book volumes represent a small proportion of the total, there has been a positive effect on the whole market from the creation of the ORB. For the bulk of retail investors liquidity in most issues should no longer be a concern.

## Market Performance

Figure 12: ORB Total Return Indices from inception (1/10/10=100)



Source: FTSE, Hardman & Co

After achieving a new all-time high in early May, market performance was very weak during the quarter. The main influence has been the start of a discussion in the US about when quantitative easing will end in the US. Although nothing firm has been announced, bond markets across the world fell sharply, by some measures having their worst month for many years. Although the fall was large, overall the market finished the quarter only a little below where it started the year.

## Index Data tables

### Performance & Volatility – Total Return (GBP)

Index	No Issues	Nominal £bn	Performance to 30/6/13 (%)			
			3M	6M	12M	24M
FTSE ORB Index	85	22.50	-2.65	-0.82	6.87	19.16
FTSE ORB Financials Index	41	9.15	-2.72	-0.57	12.30	21.89
FTSE ORB Non-Financials Index	42	13.56	-2.60	-0.99	3.59	17.22
FTSE ORB under 5y until Maturity Index	25	6.12	-0.65	0.59	3.89	8.90
FTSE ORB over 5y until Maturity Index	58	16.59	-3.35	-1.36	8.02	22.81

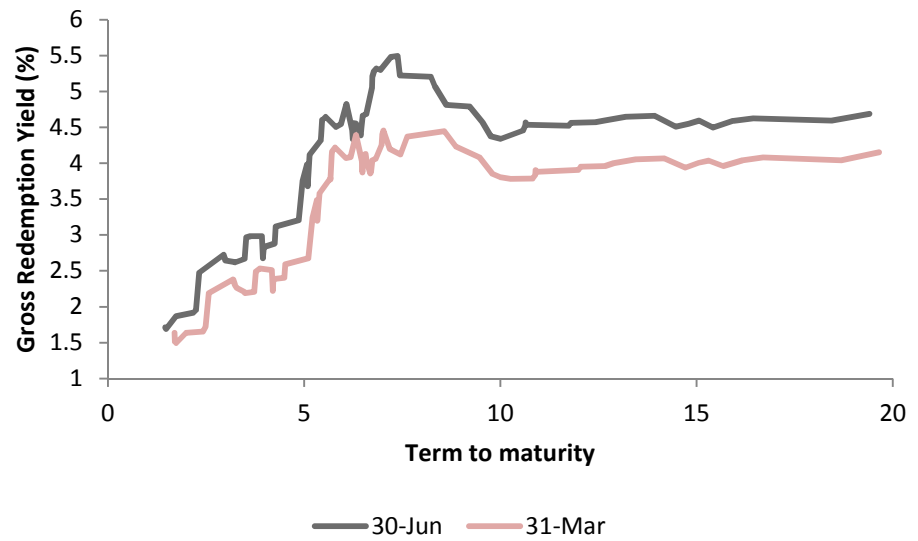
### Index Characteristics

Index	Gross redemption yield (%) *			Modified Duration *		
	3mths ago	Now – 30/6/13	change	3mths ago	Now – 30/6/13	change
FTSE ORB Index	3.70	4.27	0.57	6.99	6.70	-0.29
FTSE ORB Financials Index	4.12	4.77	0.65	7.14	6.89	-0.25
FTSE ORB Non-Financials Index	3.40	3.91	0.51	6.89	6.58	-0.32
FTSE ORB under 5y until Maturity Index	1.68	2.12	0.44	2.81	2.74	-0.07
FTSE ORB over 5y until Maturity Index	3.92	4.52	0.60	8.35	8.08	-0.27

\*See glossary

## Yield Curve

Figure 13: Yield curves for bonds in the FTSE ORB Index



Source: FTSE, Hardman & Co

Given the weak index performance over the quarter it is not surprising to see gross redemption yields (GRYs) rising. The biggest moves came in bonds with maturities above 5 years. Broadly the yields of individual bonds at the longer end moved together, but there was more evidence of differentiation for shorter maturities.

The shape of the curve is influenced by the variety of credit qualities available in the market. Broadly in the 5-10 year range there is a much greater GRY spread, suggesting a greater variety in credit quality. Future reviews will look at this in more detail.

*Financial companies remain the main issuers this quarter*

## New Issues

There were two new corporate bonds issued in the last quarter raising a total of £150m, bringing the total for the year to £420m from 5 issues. These are listed in the table below.

**Figure 14: New corporate bond issues 1/4/13 to 30/6/13**

Company	Date Listed	Issue Size (£m)	Maturity Date	Coupon
International Personal Finance	8 May 2013	70	8 May 2020	6.125%
Helical Bar	25 Jun 2013	80	24 June 2020	6.00%

The quarter saw the first issues on ORB from Helical and International Personal Finance (IPF), tapping into the interest which has clearly been generated by Provident Financial. Coincidentally IPF was formerly a subsidiary of Provident Financial, operating the same business model outside the UK. Helical Bar is a property investment and development company. Both International Personal Finance and Helical Bar already have significant borrowings and were issuing retail bonds to diversify their funding base.

Helical Bar managed to close their issue early and raised a little more money than expected. This would suggest that despite the global bond market weakness demand remains strong in the ORB and investor confidence is building.

In July we have already had a further new name announcing its intention to come to the market; Bruntwood Investments, a property management company, is targeting between £50m and £70m.

Away from the ORB there have been further corporate bonds issues, mostly to institutional investors but there has been another retail issue. Shanks Group, a waste management, has launched a bond denominated in Euros for retail investors in Belgium and Luxembourg.

## Significant Economic and Market News

*Is US QE going to end?*

The bond markets have been dominated for the last two months by questions about US economic policy, in particular when the US Federal Reserve will slow and stop its quantitative easing (QE) programme. Although there have been no official policy statements, a speech by Ben Bernanke in May was widely interpreted as signalling that consideration was being given to tapering down the current QE programme. Since then there have been various speeches by Federal Reserve policymakers which have clarified things a little. In particular there appear to be economic targets which would have to be satisfied to give confidence that the US economy could cope with monetary tightening. In addition any reduction would be gradual. A further speech by Bernanke towards the end of June in particular seems to have calmed markets.

*Big rise in US  
Treasury yields*

It would seem, however, that many investors expected the current QE programme to continue for longer than now seems likely. This has provoked a massive global sell off in bond markets, as well as some other assets. The benchmark US 10 year bond saw its yield rise from under 1.6% at the start of May to over 2.5%.

*Big QE  
announcement in  
Japan*

Government bonds in other countries had similar moves, despite many bank governors distancing themselves from US policy due to the lack of recovery in their domestic economies. At the beginning of May, before the sell-off started, the ECB reduced its benchmark interest rate to 0.5%. Although less attention grabbing in the popular press, the announcements from the Bank of Japan may prove to have deeper consequences. It has commenced a huge quantitative easing programme, with the aim of increasing inflation to 2% within 2 years. Given the low interest rates on bonds the hope is to dissuade saving and boost growth. This could be a significant step forward, but with national debt already at 245% of GDP it is not clear whether it will be enough to really change the country's long term prospects.

In the UK monetary policy remained stable over the quarter, with no changes to either interest rates or its ongoing quantitative easing programme. There were, however, some members of the monetary policy committee who voted in favour of increasing the latter. But the new governor of the Bank of England is reiterating that rates will follow a lower long term trajectory that the market has been assuming.

*Biggest bond issue  
ever*

Over the last quarter there were two notable corporate events. In the US Apple had the largest US corporate bond issue in history, raising \$17bn, whilst, in the UK, Co-operative Bank saw its debt downgraded six notches by Moody's to "junk" status. It subsequently announced a plan to raise £1.5bn over the next eighteen months to fill a hole in its balance sheet. A major part of this is 'bailing in' bond holders, including those invested in the ORB tradable issue. Bond holders will be offered a mixture of shares in the bank, to be listed, and a new debt instrument. Further details will be announced in the Autumn.

The ORB has continued to add new market makers. Winterflood Securities and Lloyds Bank were the first gilt-edged market makers (GEMMs) to act as registered market makers on ORB, as well as being traders in the commercial issues.



## Glossary:

**Flat (running) yield:** The interest earned expressed as a % of the price paid for the asset. Note that this ignores the capital gain or loss inherent by buying the asset at a price greater than or lower than the eventual redemption price (see Gross Redemption Yield).

**Gross Redemption Yield:** The annual interest rate at which the present value of all future payments on a bond equals its current price. It takes into account any capital gain/loss incurred as well as the coupon payments.

**Modified Duration:** the average time of future payments, weighted by their present value. It is a measure of interest rate sensitivity, with higher values denoting greater sensitivity.

## Bond Statistics as of 30<sup>th</sup> June 2013

### Fixed Rate ORB Corporate Bonds (alphabetically by issuer)

Name	ISIN	Maturity Date	Coupon Value	Next Coupon	Period of Coupon	Price	Flat Yield %	GRY (%)	Duration (years)	Liquidity (£)
ALPHA PLUS HOLDINGS PLC ALPHA PLUS 19	XS0853358801	18-Dec-19	5.75	18-Dec-13	6 month	102.45	5.61	5.37	5.49	1,794,774
ANGLIAN WATER SERVICES FINANCING PLC ANG.W.S.F.5.25%	XS0211684831	30-Oct-15	5.25	30-Oct-13	12 month	108.4	4.84	1.50	2.19	796,995
ANGLIAN WATER SERVICES FINANCING PLC ANGLIANWTR6.875	XS0089553282	21-Aug-23	6.625	21-Aug-13	12 month	126.7	5.23	2.59	7.92	207,719
ANHEUSER-BUSCH INBEV NV AB INBEV 6.50%	BE6000183549	23-Jun-17	6.5	23-Jun-14	12 month	117.05	5.55	1.96	3.65	1,923,300
AVIVA PLC AVIVA 6.125% 36	XS0138717441	14-Nov-36	6.125	14-Nov-13	12 month	95.9	6.39	5.58	13.07	4,076,844
B.A.T. INTERNATIONAL FINANCE PLC B.A.T.IF 6.375%	XS0182188366	12-Dec-19	6.375	12-Dec-13	12 month	121.34	5.24	2.68	5.43	15,464,699
BARCLAYS BANK PLC BARCLAYS.5.75%	XS0134886067	14-Sep-26	5.75	14-Sep-13	12 month	99.04	5.79	5.82	9.17	9,358,603
BEAZLEY PLC BEAZLEY 5.375%	XS0827693663	25-Sep-19	5.375	25-Sep-13	6 month	103.78	5.18	4.72	5.32	3,966,139
BP CAPITAL MARKETS PLC BP CAP. 14	XS0436300247	29-Dec-14	4	29-Dec-13	12 month	104.16	3.84	1.14	1.45	1,202,186
BRITISH TELECOMMUNICATIONS PLC BR.TEL.5.75% 28	XS0097283096	07-Dec-28	5.75	07-Dec-13	12 month	112.3	5.10	4.58	10.63	7,614,124
BRITISH TELECOMMUNICATIONS PLC BR.TEL.8.625%	XS0052067583	26-Mar-20	8.625	26-Mar-14	12 month	131.04	6.58	3.37	5.48	8,087,267
BRITISH TELECOMMUNICATIONS PLC BRIT.TEL.NTS16	XS0123682758	07-Dec-16	7.5	07-Dec-13	12 month	120.56	6.22	0.61	3.26	4,947,765
CLS HOLDINGS PLC CLS HDGS 19	XS0820711215	31-Dec-19	5.5	31-Dec-13	6 month	99.88	5.51	5.60	5.54	2,928,628
COMPASS GROUP PLC COMPASS 7% BDS14	XS0100559037	08-Dec-14	7	08-Dec-13	12 month	108.33	6.46	1.06	1.37	88,923
DAILY MAIL & GENERAL TRUST PLC DMGT.5.75%18	XS0170485204	07-Dec-18	5.75	07-Dec-13	12 month	106.84	5.37	4.27	4.70	609,359
EASTERN GROUP EAST.GP. 8.5%2025	XS0058209106	31-Mar-25	8.5	31-Mar-14	12 month	139.1	6.08	4.15	8.37	623,383
EASTERN POWER NETWORKS PLC EAST.POWER5.75%	XS0187202303	08-Mar-24	5.75	08-Mar-14	12 month	114.05	5.03	4.06	8.32	2,514,277
ENQUEST PLC ENQUEST 22	XS0880578728	15-Feb-22	5.5	15-Aug-13	6 month	102.78	5.35	5.16	6.87	8,638,721
ENTERPRISE INNS PLC ENTER INNS 2018	XS0163019143	06-Dec-18	6.5	06-Dec-13	6 month	98.75	6.58	6.89	4.63	3,892,220
EUROPEAN INVESTMENT BANK EIB 3% 2015	XS0497463777	07-Dec-15	3	07-Dec-13	12 month	105.15	2.85	0.67	2.52	6,726,848
EUROPEAN INVESTMENT BANK EURO.I.BK.16	XS0602217159	07-Dec-16	3.25	07-Dec-13	12 month	106.96	3.04	0.79	3.43	23,277,639
EUROPEAN INVESTMENT BANK EURO.IV.8.75%	XS0055498413	25-Aug-17	8.75	25-Aug-13	12 month	129.47	6.76	0.86	3.70	13,426,900
FIRSTGROUP PLC FIRSTGROUP6.125	XS0181013607	18-Jan-19	6.125	18-Jan-14	12 month	107.84	5.67	4.46	4.78	1,190,370
GE CAPITAL UK FUNDING GE CAP.UK 18	XS0381559979	06-Aug-18	6.75	06-Aug-13	12 month	118.26	5.70	2.81	4.31	2,414,521
GE CAPITAL UK FUNDING GE CAP.UK 33	XS0340495216	18-Jan-33	5.875	18-Jan-14	12 month	112.09	5.23	4.87	12.28	5,623,683

Name	ISIN	Maturity Date	Coupon Value	Next Coupon	Period of Coupon	Price	Flat Yield %	GRY (%)	Duration (years)	Liquidity (£)
GE CAPITAL UK FUNDING GE CAP.UK5.625%	XS0297507773	25-Apr-19	5.625	25-Apr-14	12 month	112.89	4.98	3.14	5.12	457,462
GKN HOLDINGS PLC GKN 6.75% BDS19	XS0103214762	28-Oct-19	6.75	28-Oct-13	12 month	110.67	6.08	4.67	5.20	11,972,913
GLAXOSMITHKLINE CAPITAL PLC GLAXOSMSC 5.25%	XS0140516864	19-Dec-33	5.25	19-Dec-13	6 month	114.29	4.58	4.22	13.30	603,285
HAMMERSON PLC HAMMERSON 6%26	XS0184639895	23-Feb-26	6	23-Feb-14	12 month	116.77	5.12	4.22	9.34	6,339,563
HAMMERSON PLC HAMMERSON 7.25%28	XS0085732716	21-Apr-28	7.25	21-Apr-14	12 month	128.67	5.62	4.51	10.10	2,297,031
HAMMERSON PLC HAMMERSON6.875%	XS0109514538	31-Mar-20	6.875	31-Mar-14	12 month	121.05	5.67	3.30	5.66	11,160
HELICAL BAR PLC HELICAL B.20	XS0942129957	24-Jun-20	6	24-Dec-13	6 month	100.95	5.94	6.00	5.80	NA
HSBC BANK PLC HSBC BK.5.375%	XS0174470764	22-Aug-33	5.375	22-Aug-13	12 month	99.73	5.36	5.34	12.23	367,997
HSBC BANK PLC HSBC BK.6.5%NT2	XS0088317853	07-Jul-23	6.5	07-Jul-13	12 month	115.03	5.63	4.53	7.43	2,277,881
ICAP PLC ICAP 5.50%	XS0805454872	31-Jul-18	5.5	31-Jul-13	6 month	101.78	5.40	5.15	4.41	5,842,403
IMPERIAL TOBACCO FINANCE PLC IMP.TOB.FIN.6.25%	XS0180407602	04-Dec-18	6.25	04-Dec-13	12 month	117.12	5.33	2.76	4.68	5,035,371
INTERMEDIATE CAPITAL GROUP PLC INT.CAP.GRP	XS0716336325	21-Dec-18	7	21-Dec-13	6 month	103.7	6.75	6.29	4.64	1,450,294
INTERMEDIATE CAPITAL GROUP PLC INT.CAP.GRP20	XS0818634668	19-Sep-20	6.25	19-Sep-13	6 month	99.73	6.27	6.40	5.81	3,273,287
INTERNATIONAL PERSONAL FINANCE PLC INTER.PERS.20	XS0919406800	08-May-20	6.125	08-Nov-13	6 month	99.4	6.16	6.33	5.64	NA
KINGFISHER PLC KINGFISHER5.625	XS0178322474	15-Dec-14	5.625	15-Dec-13	12 month	104.96	5.36	2.08	1.40	38,166
LBG CAPITAL NO.1 PLC LBG CAP 1 19	XS0459086749	12-May-20	7.588	12-Nov-14	6 month	101.7	7.46	6.49	5.45	3,106,679
LBG CAPITAL NO.1 PLC LBG CAP 1 20	XS0459086582	12-May-20	7.975	29-Nov-14	6 month	100	7.98	5.72	5.44	6,598,454
LBG CAPITAL NO.2 PLC LBG CAP 2 20	XS0459088109	07-Feb-20	9.334	07-Feb-14	12 month	108.13	8.63	7.73	5.28	228,638
LEGAL & GENERAL FINANCE PLC LEG&GEN.5.875%	XS0121464779	11-Dec-31	5.875	11-Dec-13	6 month	117.09	5.00	4.52	12.04	352,665
LLOYDS TSB BANK PLC LLOYDS 5.375%	XS0517466198	07-Sep-15	5.375	07-Sep-13	6 month	106.33	5.06	2.39	2.06	646,950
LLOYDS TSB BANK PLC LLOYDS BK 5.50%	XS0604804194	25-Sep-16	5.5	25-Sep-13	6 month	109.37	5.03	2.45	2.98	1,393,072
LLOYDS TSB BANK PLC LLOYDS BK. 25	XS0503834821	22-Apr-25	7.625	22-Oct-13	6 month	111.34	6.83	6.31	8.11	20,610,342
LLOYDS TSB BANK PLC LLOYDS BK.5.875	XS0149620691	20-Jun-14	5.875	20-Jun-14	12 month	102.77	5.72	3.35	1.09	1,165,970
LLOYDS TSB BANK PLC LLOYDS BK.6.625	XS0109722990	30-Mar-15	6.625	30-Mar-14	12 month	105.73	6.26	3.14	1.68	3,559,964
LLOYDS TSB BANK PLC LLOYDS BK.9.625%	XS0043098127	06-Apr-23	9.625	06-Apr-13	12 month	124.57	7.71	6.15	6.96	9,808,658
LONDON POWER NETWORKS PLC LONDON POW.27	XS0148889420	07-Jun-27	6.125	07-Jun-14	12 month	117.25	5.21	4.41	10.08	43,481
LONDON STOCK EXCHANGE GROUP PLC LON.STK.EX21	XS0846486040	02-Nov-21	4.75	02-May-14	6 month	102.19	4.65	4.48	6.94	11,231,725
MARKS & SPENCER PLC MARKS&SP.5.625%	XS0188430721	24-Mar-14	5.625	24-Mar-14	12 month	102.88	5.47	3.09	0.90	519,442
MORGAN STANLEY MORGAN ST.5.375	US617446HS12	14-Nov-13	5.375	14-Nov-13	6 month	101.55	5.29	2.46	0.53	9,495,508
NATIONAL GRID ELECTRICITY TRANSMISSION PLC NAT.GRID 5.875%	XS0094073672	02-Feb-24	5.875	02-Feb-14	12 month	117.58	4.98	3.79	8.22	1,142,044

Name	ISIN	Maturity Date	Coupon Value	Next Coupon	Period of Coupon	Price	Flat Yield %	GRY (%)	Duration (years)	Liquidity (£)
NATIONAL GRID ELECTRICITY TRANSMISSION PLC NAT.GRID6.50%£	XS0132735373	27-Jul-28	6.5	27-Jul-13	12 month	125.08	5.18	4.18	10.13	338,544
NATIONAL GRID GAS PLC NAT.GRD.G 6%	XS0141704725	07-Jun-17	6	07-Jun-14	12 month	115.37	5.19	1.86	3.63	2,785,390
NORTHUMBRIAN WATER FINANCE PLC NTHNBN.WTR.6%17	XS0139335029	11-Oct-17	6	11-Oct-13	12 month	116.33	5.15	1.93	3.79	4,716,464
PARAGON GROUP OF COMPANIES PLC PARAGON GP20	XS0891023086	05-Dec-20	6	05-Sep-13	6 month	99.75	6.02	6.13	5.82	5,351,543
PLACES FOR PEOPLE CAPITAL MARKETS PLC PLACES PEO 5%	XS0635014177	27-Dec-16	5	27-Dec-13	6 month	104.68	4.78	3.59	3.24	5,214,638
PRIMARY HEALTH PROPERTIES PLC PRIMARY HLTH 19	XS0795445823	23-Jul-19	5.375	23-Jul-13	6 month	102.2	5.26	5.01	5.15	6,060,777
PROVIDENT FINANCIAL PLC PROV.FIN 7.5%	XS0605672558	30-Sep-16	7.5	30-Sep-13	6 month	104.45	7.18	6.06	2.90	2,053,731
PROVIDENT FINANCIAL PLC PROV.FIN 7% 17	XS0762418993	04-Oct-17	7	04-Oct-13	6 month	104.65	6.69	5.83	3.71	4,983,695
PROVIDENT FINANCIAL PLC PROV.FIN6%21	XS0900863084	27-Sep-21	6	27-Sep-13	6 month	100.43	5.98	6.03	6.52	10,035,930
PROVIDENT FINANCIAL PLC PROVIDENT 7.00%	XS0496412064	14-Apr-20	7	14-Oct-13	6 month	103.45	6.77	6.46	5.46	596,089
PRUDENTIAL PLC PRU.6 7/8%2023	XS0083544212	20-Jan-23	6.875	20-Jan-14	12 month	124.01	5.53	3.78	7.39	15,615
ROLLS-ROYCE PLC ROLLS-R 7.375%	XS0112487482	14-Jun-16	7.375	14-Jun-14	12 month	116.83	6.30	1.45	2.76	132,159
ROYAL BANK OF SCOTLAND PLC ROY.BK.SC.20	GB00B3N3WC23	01-Feb-20	5.1	01-Feb-14	12 month	101.88	5.00	4.72	5.66	364,503
SAFEWAY PLC SAFEWAY 6.00%	XS0140144204	10-Jan-17	6	10-Jan-14	12 month	111.99	5.35	2.36	3.22	384,889
SAFEWAY PLC SAFEWAY 6.125%	XS0093004736	17-Dec-18	6.125	17-Dec-13	12 month	116.26	5.26	2.82	4.73	1,795,561
SAFEWAY PLC SAFEWAY 6.5%NT14	XS0100362911	05-Aug-14	6.5	05-Aug-13	12 month	105.15	6.18	1.66	1.03	494,408
SCOTTISH POWER UK PLC SCOT.PWR.UK8.375%	XS0073359548	20-Feb-17	8.375	20-Feb-14	12 month	120.48	6.94	2.36	3.24	253,056
SEGRO PLC SEGRO 6%19	XS0179346274	30-Sep-19	6	30-Sep-13	6 month	115.49	5.18	3.21	5.31	616,145
SEGRO PLC SEGRO. 6.25%	XS0093802055	30-Sep-15	6.25	30-Sep-13	12 month	108.98	5.73	2.06	2.08	215,354
SEGRO PLC SEGRO.5.75	XS0221324154	20-Jun-35	5.75	20-Jun-14	12 month	108.1	5.30	5.10	13.35	106,040
SEGRO PLC SEGRO.6.75	XS0107099466	23-Feb-24	6.75	23-Aug-13	6 month	119.88	5.62	4.40	7.89	2,364,753
SEGRO PLC SEGRO5.50%	XS0221323693	20-Jun-18	5.5	20-Jun-14	12 month	111.12	4.94	2.98	4.50	1,411,971
SEVERN TRENT UTILITIES FINANCE PLC SEVERN T.6.125%	XS0094475802	26-Feb-24	6.125	26-Feb-14	12 month	118.22	5.17	3.95	8.21	29,151
SEVERN TRENT UTILITIES FINANCE PLC SEVERN T.6.25%BD	XS0097777253	07-Jun-29	6.25	07-Jun-14	12 month	122.01	5.10	4.27	11.05	298,198
SEVERN TRENT UTILITIES FINANCE PLC SEVERN T5.25%	XS0176529583	08-Dec-14	5.25	08-Dec-13	12 month	105.61	4.97	1.26	1.39	106,087
SMITHS GROUP PLC SMITH IND 7.25%	XS0111725049	30-Jun-16	7.25	30-Jun-14	12 month	112.26	6.45	2.88	2.81	156,729
SSE PLC SSE.5.875%	XS0095371638	22-Sep-22	5.875	22-Sep-13	12 month	118.63	4.94	3.44	7.27	381,992
ST.MODWEN PROPERTIES PLC ST.MODWEN 19	XS0841076465	07-Nov-19	6.25	07-Nov-13	6 month	103.53	6.04	5.66	5.31	4,875,218
TESCO PERSONAL FINANCE PLC TESCO PF 5.2%	XS0591029409	24-Aug-18	5.2	24-Aug-13	6 month	102.38	5.08	4.73	4.51	3,738,440
TESCO PERSONAL FINANCE PLC TESCO PF 5%	XS0780063235	21-Nov-20	5	21-Nov-13	6 month	102.53	4.88	4.64	6.25	7,224,490

Name	ISIN	Maturity Date	Coupon Value	Next Coupon	Period of Coupon	Price	Flat Yield %	GRY (%)	Duration (years)	Liquidity (£)
TESCO PLC TESCO 6%NT29	XS0105244585	14-Dec-29	6	14-Dec-13	12 month	113.07	5.29	4.79	10.95	4,627,717
TESCO PLC TESCO5.50% NT19	XS0159013068	13-Dec-19	5.5	13-Dec-13	12 month	113.31	4.85	3.16	5.52	4,162,007
TULLETT PREBON PLC TULLETT 5.25%	XS0859261520	11-Jun-19	5.25	11-Dec-13	6 month	98.25	5.34	5.67	5.16	6,328,347
UBS AG UBS 16	XS0440316635	20-Jul-16	6.375	20-Jul-13	12 month	113.57	5.61	1.71	2.73	2,314,560
UNILEVER PLC UNILEVER 4.00%	XS0418570130	19-Dec-14	4	19-Dec-13	12 month	104.55	3.82	0.82	1.43	236,240
UNILEVER PLC UNILEVER 4.750%	XS0434423926	16-Jun-17	4.75	16-Jun-14	12 month	112.37	4.22	1.46	3.71	924,153
UNITE GROUP PLC UNITE GRP 20	XS0856594642	12-Jun-20	6.125	12-Dec-13	6 month	102	6.01	5.85	5.75	6,585,003
UNITED UTILITIES WATER PLC UTD WTR. 5.375%	XS0168054673	14-May-18	5.375	14-May-14	12 month	113.15	4.75	2.45	4.41	1,265,262
UNITED UTILITIES WATER PLC UTD WTR.5.625%	XS0159728236	20-Dec-27	5.625	20-Dec-13	12 month	115.22	4.87	4.16	10.33	5,693,246
VODAFONE GROUP PLC VODAFONE 5.90%	XS0158715713	26-Nov-32	5.9	26-Nov-13	12 month	115.04	5.11	4.66	12.22	305,622
VODAFONE GROUP PLC VODAFONE NTS25	XS0181816652	04-Dec-25	5.625	04-Dec-13	12 month	113.95	4.92	4.12	9.24	1,013,195
WESSEX WATER SERVICES FINANCE PLC WESSEX W.S.5.75	XS0178489844	14-Oct-33	5.75	14-Oct-13	12 month	115.75	4.95	4.51	12.63	269,779
WORKSPACE GROUP PLC WORKSPACE 6%	XS0832324981	09-Oct-19	6	41373	6 month	103.33	5.81	5.44	5.27	3,162,818

Source; London Stock Exchange, FTSE, Hardman & Co.

**Definitions** as of 30/6/2013 except liquidity:

Next Coupon – date next coupon will be paid.

Flat Yield – coupon rate as percentage of price.

GRY – Gross Redemption Yield.

Liquidity – Average monthly value traded over 2<sup>nd</sup> quarter of 2013. New issues are NA.

## Non-Standard Corporate Bonds on ORB (alphabetically by issuer)

Name	ISIN	Maturity Date	Coupon Value	Coupon Type	Next Coupon	Period of Coupon	Price	Flat Yield (%)	GRY (%)	Duration (years)	Liquidity (£)	Note
CO-OPERATIVE BANK PLC CO-OP.BK.5.5555	GB00B3VMBW45	Irredeemable	5.556	Fixed	31-Jul-13	6 month	38.5	7.42	7.42	6.93	9,454,172	Irredeemable
COVENTRY BUILDING SOCIETY COVENTRY.6.092%	GB00B177CL57	31-Dec-99	6.092	Fixed	29-Dec-13	6 month	93.75	6.15	6.15	15.39	3,221,762	Irredeemable
EUROPEAN INVESTMENT BANK EIB FRN 2015	XS0487944752	19-Feb-15	0.8	Variable	19-Aug-13	3 month	100	0.80			16,917,264	Variable Coupon rate
HSBC BANK PLC HSBC BK. 2.875%	XS0773551972	30-Apr-15	1.438	Fixed	30-Apr-13	6 month	100	1.44	1.44		-	Denominated in CNY
LEGAL & GENERAL GROUP PLC LEGAL&GEN.5.875	XS0189013823	Irredeemable	5.875	Fixed	01-Oct-13	6 month	103.7	5.67	5.66	17.65	4,781,837	Irredeemable
NATIONAL GRID PLC NAT.GRID BD 21	XS0678522490	06-Oct-21	1.25	Inflation-linked	06-Apr-13	6 month	107.25	1.20			9,158,742	Index-linked
NATIONWIDE BUILDING SOCIETY NATIONWIDE.PIBS	GB0001777449	Irredeemable	6.024	Fixed	06-Aug-13	6 month	97.25	6.19	6.20	16.14	2,444,999	Irredeemable
PLACES FOR PEOPLE CAPITAL MARKETS PLC PLACES PEO 1%	XS0731910765	31-Jan-22	1	Variable	31-Jul-13	6 month	103	0.97			1,612,975	Index-linked
ROYAL BANK OF SCOTLAND PLC ROY.BK.SC NTS17	GB00B42SH312	07-Mar-17	2	Variable	07-Sep-13	3 month	102.35	1.79			5,174	Variable Coupon rate
ROYAL BANK OF SCOTLAND PLC ROY.BK.SC. 20	GB00B4MTS317	06-Dec-20	0.068	Variable	06-Sep-13	3 month	103.42	0.05			114,238	Variable Coupon rate
ROYAL BANK OF SCOTLAND PLC ROY.BK.SC. 2018	GB00B3YYW134	07-Nov-18	2	Fixed	07-Nov-13	12 month	108.32	1.70			19,738	Variable redemption amount
ROYAL BANK OF SCOTLAND PLC ROY.BK.SC. 22	GB00B4RM3T66	01-Nov-22	3.9	Variable	01-Aug-13	3 month	105.59	NA			66,210	Variable Coupon rate
ROYAL BANK OF SCOTLAND PLC ROY.BK.SC. 22	GB00B4P95L57	01-Nov-22	3.9	Variable	01-Aug-13	3 month	99.85	NA			702,422	Variable Coupon rate
ROYAL BANK OF SCOTLAND PLC ROY.BK.SC.18	GB00B442CZ84	01-Feb-18	3.3	Fixed	01-Aug-13	3 month	117.54	2.81			-	Variable redemption amount

Name	ISIN	Maturity Date	Coupon Value	Coupon Type	Next Coupon	Period of Coupon	Price	Flat Yield (%)	GRY (%)	Duration (years)	Liquidity (£)	Note
RSA INSURANCE GROUP PLC RSA INS. 8.5%S	XS0197028714	Irredeemable	8.5	Fixed	08-Dec-13	12 month	104.38	8.14	8.14	12.28	7,205,615	Irredeemable
SEVERN TRENT PLC SEVERN T.22	XS0796078193	11-Jul-22	1.3	Variable	11-Jul-13	6 month	107.98	1.20			3,847,884	Index-linked
TESCO PERSONAL FINANCE PLC TESCO PF 1%	XS0710391532	16-Dec-19	1	Variable	16-Dec-13	6 month	103.15	0.97			2,119,208	Index-linked

Source; London Stock Exchange, FTSE, Hardman & Co.

THIS DOCUMENT IS THE FIRST IN A PLANNED SERIES ASSESSING DEVELOPMENTS IN THE ORB MARKET. IF YOU HAVE ANY TOPICS YOU WOULD LIKE HARDMAN & Co TO FOCUS ON IN THE NEXT ISSUE, PLEASE CONTACT US ON [research@hardmanandco.com](mailto:research@hardmanandco.com).

## Hardman Team

### Analysts

Dr Mark Brewer	+44 (0)207 929 3399	mb@hardmanandco.com
Yingheng Chen	+44 (0)207 148 0547	yc@hardmanandco.com
Ian Falconer	+44 (0)207 929 3399	research@hardmanandco.com
Mike Foster	+44 (0)207 929 3399	mf@hardmanandco.com
Dr Martin Hall	+44 (0)207 929 3399	mh@hardmanandco.com
Doug Hawkins	+44 (0)207 929 3399	dh@hardmanandco.com
Adrian Kearsley	+44 (0)207 148 0541	ak@hardmanandco.com
Dr Brian Moretta	+44 (0)207 929 3399	bm@hardmanandco.com
Mark Parfitt	+44 (0)207 929 3399	research@hardmanandco.com
Derek Terrington	+44 (0)207 148 4504	dt@hardmanandco.com
Stephen Thomas	+44 (0)207 148 0534	st@hardmanandco.com
Tony Williams	+44 (0)207 929 3399	tw@hardmanandco.com

### Investor Engagement

Max Davey	+44 (0)207 148 0540	md@hardmanandco.com
Keith Hiscock	+44 (0)207 148 0544	kh@hardmanandco.com
Felicity Reid	+44 (0)207 148 0546	fr@hardmanandco.com



**NOTES:**

**NOTES:**

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London Stock Exchange Group plc  
10 Paternoster Square  
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EC4M 7LS

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**Hardman & Co**

11/12 Tokenhouse Yard  
London  
EC2R 7AS  
United Kingdom

Tel: +44(0)20 7929 3399  
Fax: +44(0)20 7929 3377

[www.hardmanandco.com](http://www.hardmanandco.com)

