Under the surface
Focus on ETF Liquidity

For professional clients only
Introduction

ETFs have been designed as highly liquid investment vehicles, allowing investors to establish both long and short term positions dependant on their asset allocation requirements.

However, there are many common misconceptions about how ETF liquidity is achieved and the best ways in which to analyse the underlying liquidity of an ETF.

This document aims to examine the factors that affect ETF liquidity, including the roles of the primary and secondary markets to create and sustain liquidity. We will also examine the common misunderstandings in the correlation between trading volume and liquidity, and the implications of an ETF trading at a discount/premium to its Net Asset Value (NAV).
ETFs offer high levels of liquidity

Indeed, this is one of the key benefits of the ETF structure.

This has much to do with the unique way that ETF shares are created and traded. Investors can buy and sell ETF shares in the secondary market, either Over-The-Counter (OTC) or on exchange (secondary market), where they trade like shares. In the primary market, Authorised Participants can create and redeem shares in the ETF with the ETF provider in a process unique to ETFs.

In the primary market, Authorised Participants (such as large brokerages and other financial institutions) can exchange cash or in-kind securities for shares in the ETF (creation) or can exchange these ETF shares back to cash or securities (redemption). Each ETF has a minimum creation basket size, which reflects the smallest number of ETF shares a portfolio manager needs to create in order to recreate the underlying benchmark. The size varies according to the characteristics of the underlying index - the broader the index, the larger the minimum basket size. Trades in the primary market are then usually carried out in multiples of the minimum creation basket.

The creation and redemption process means that demand and supply of the ETF shares can be adjusted in the primary market through the creation/redemption process. This ability to buy and sell ETF shares at any time ensures that the price of an ETF remains largely in line with its NAV and means that an ETF can be as liquid as the underlying securities that make up the fund.

Although most investors trade ETFs on the secondary market, both primary and secondary markets play a role in providing the overall liquidity of the ETF. As such, it is always worth remembering that on-exchange liquidity represents only a small part of the overall liquidity of an ETF.

The chart on the next page shows the creation / redemption process for ETFs, as well as how the funds are traded on the secondary market.
Creation and redemption process

How are ETFs bought and sold: primary and secondary markets
Trading Volume and Liquidity

One common misconception with ETFs is that their liquidity is equivalent to their trading volume. However, this is not the case.

An ETF’s trading volume shows how many shares have been traded in that particular ETF over a specific past period of time.

An ETF’s true liquidity is defined by how many shares of an ETF can be potentially traded and is determined by the liquidity of the underlying securities in which the fund is invested.

When considering an investment in ETFs, HSBC believes that investors should consider a combination of both the ETF’s trading volume (Average Daily Volume) and the liquidity of the underlying shares.

Increasingly, market participants are looking towards a measurement known as ETF Implied Liquidity, which can be accessed via Bloomberg. This shows market participants the total number of ETF shares potentially available for trading, and is computed using the average daily volume of the underlying securities.

We believe this gives a better representation of the overall liquidity of the ETF.

Looking at the example of the S&P 500 UCITS ETF (below), one can see that whilst the on screen “30 Daily Average Volume” is 177,400 shares, the implied liquidity is at 499,900,000 shares, reflecting the potential liquidity of the ETF and implicitly the true liquidity of the underlying securities.

One further point, when considering secondary market liquidity, is that under the Markets in Financial Instruments Directive (MiFID), ETF trades do not currently have to be reported in Europe, meaning that investors cannot accurately measure the true volume of ETF shares traded. Indeed, it has been estimated that only about 30% of all ETF trades in Europe are reported. As the majority of ETF orders are traded over the counter (OTC), this diminishes the perceived liquidity of the product. This is different to the US market where all trades are reported on-screen, so the liquidity of ETFs as an asset class is deemed a lot better.

Source: ETFGI, September 2015
The factors

Factors Affecting ETF Liquidity

**ETF composition:** If an ETF contains equities that have low liquidity, then the ETF as a whole will be less liquid than an ETF containing blue-chip stocks, for example.

**Specialisation of the ETF:** If an ETF only invests in a single market segments, it may be difficult to buy and sell shares in that fund when that segments is experiencing adverse trading conditions.

**Underlying asset class:** An ETF’s liquidity may be affected if the fund’s asset class is experiencing adverse conditions. This will likely translate into lower trading volumes and lower liquidity for that ETF.

**Market environment:** As with all listed securities, a difficult market environment or increased market volatility would impact on the liquidity of an ETF.

**Liquidity of the underlying market:** ETFs tracking developed world market indices tend to be more liquid than those tracking emerging markets, given that many emerging markets tend to be less liquid than their developed market peers.

Layers of ETF liquidity

**Underlying securities:** An increase in the trading volume of an ETF’s underlying securities will increase the liquidity of the ETF.

**ETF:** However, an increase in the trading volume of an ETF will also increase its liquidity, as it tend to imply greater supply and demand for the shares within the fund.

Why is ETF Liquidity important?

High levels of ETF liquidity mean that it may be easier to enter and exit positions, as highly liquid ETFs tend to have a lower bid/ask spread, reflecting the easy access to the underlying market and the higher supply and demand for shares within the portfolio. Conversely, an ETF with low liquidity may be harder to trade, and imply higher trading costs, which reflect the lower liquidity of the underlying market.
**NAV of an ETF**

The NAV of an ETF is the sum of all its assets less liabilities divided by the number of shares outstanding. It is regarded as an indication of the fair value of a single share in the fund.

One positive feature of ETFs is that they also have an indicative NAV which can be accessed in real time during the trading day. This gives an approximation of the most recent NAV of the fund, enabling the NAVs of different ETFs to be instantly accessed and compared to see how fairly they are being priced by the market.

In contrast, mutual funds tend to release their NAVs once a day, given that they are not listed on a stock exchange and are not governed by the same rules as listed securities.

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**What happens when ETFs trade at a discount/premium to their NAV?**

As ETFs are traded on exchange like a company stock, they have a market price that goes up and down like a share price. Similarly, just like a share being traded either on exchange or Over-The-Counter (OTC), ETF prices are impacted by supply and demand forces, with the bid/ask spread indicating the current value at which investors can buy or sell ETF shares.

This does mean that there are sometimes occasions when the market price of an ETF can move away from its NAV.

An ETF is trading at a premium when its market price is higher than its NAV (i.e. what each individual security held within the ETF is worth). Conversely, an ETF is trading at a discount when its market price is lower than its NAV.

These price discrepancies offer arbitrage opportunities for ETF market participants, which tend to move the market price quickly back towards a true representation of the ETF’s NAV.

The degree of discount/premium also depends upon which ETFs are being traded. For example, an ETF based on a liquid US stock market index (such as the S&P 500) would tend to have very short periods when it is trading at a discount or premium to NAV and these discounts and premiums would be small in size. The higher number of market participants trading ETFs in these highly liquid markets means that the market tends to self-correct automatically back towards NAV. This is because any arbitrage opportunities tend to diminish as they generate greater amounts of interest from market participants.

International ETFs from some providers can have longer periods of trading at a discount/premium to NAV and these discounts and premiums could be larger in size. This can be due to a number of factors, including the fund trading during a period of time when the market where it invests is closed. A lack of liquidity in some international ETFs (such as those investing in emerging markets) can also pose an issue for trading values.

Arbitrage opportunities around ETF pricing tend to be of more interest to investors that are trading ETFs regularly. Long-term investors who are looking to buy and hold their ETF investment would be less impacted by these opportunities.
Let’s consider an example to illustrate this. The chart shows the trading premium/discount of the HSBC FTSE 100 UCITS ETF over the past four years. As can be seen, this fund has historically traded at a premium of around 50 basis points (bps) to NAV. This is due to the 50bps stamp duty applicable on the fund when it was created in the Primary Market (which is standard for all funds that track UK-based equity indices).

As you can see on the chart, during H2 2012 this fund – which is based on the performance of the UK’s leading share index – started to move towards trading at its NAV, with the fund actually dipping slightly below NAV in early 2013.

However, the view of our European equity strategists at this time was increasingly that UK stocks were offering good potential growth in earnings per share and that they were consequently recommending an increase in exposure to UK stocks.

As such, HSBC recommended initiating a trade on the HSBC FTSE 100 UCITS ETF on 30 April 2013, when it was trading at a premium of just one basis point above NAV. We closed the deal on 2 August 2013, when the ETF had returned to around the anticipated fund premium of nearly 50 bps above premium.

Inception and prices as of 20 August 2013
Source: Bloomberg & HSBC Global Banking and Markets
The conclusion

It is important to remember that an ETF is as liquid as the underlying securities contained within the index that it tracks. On-exchange liquidity only represents a fraction of total ETF liquidity, with the unique Creation/Redemption mechanism within the Primary Market providing the same liquidity as that of the underlying market.

HSBC’s range of developed market and emerging market ETFs offers easy tradability and the ability to provide diversified market access, making them ideal investment solutions for both the short and long term.
What to consider when investing in an ETF

ETFs in a nutshell
Exchange Traded Funds (ETFs) are essentially the same as traditional funds except they are listed on a stock exchange and are therefore tradable in real-time when the stock market is open, like shares.

Most ETFs are index trackers, aiming to match the performance of a given index, such as the FTSE 100 or S&P 500, after fees.

There are a variety of factors that make ETFs attractive to both individual and institutional investors:

- Choice, there is a huge range of ETFs in Europe that provide access to a wide variety of markets, from mainstream developed markets to emerging markets,
- Relatively low cost,
- Simplicity of their investment objective in the case of index trackers and,
- The ability to trade them like any listed stock.

About HSBC ETFs
HSBC offers 27 ETFs in Europe with USD 9.9bn of assets under management1. We have been managing ETFs since 2003, starting in Hong Kong through Hang Seng Bank.

HSBC launched its first European ETFs in 2009, and today offers a wide range of ETFs that cover the main developed and emerging equity markets. All of our ETFs use physical replication to track index performance.

HSBC’s ETFs are all UCITS IV compliant, ISA and SIPP eligible and have UK Reporting Fund status.

1 Sources: HSBC Global Asset Management, end of February 2016.

Simplicity and transparency
Investors in ETFs have to choose between two fundamentally different index replication methods – physical or synthetic.

For its entire ETF range, HSBC uses only physical replication. Physical replication means that the fund buys all stocks in the same proportion as they are included in the index (fully replicated). When it is not feasible, the fund may use optimisation, whereas the fund invests in a sample of stocks with a risk/return profile similar to the overall underlying market (optimised physical). Synthetic ETFs use derivatives issued by a Counterparty (third party involved in the transaction) to generate their performance without necessarily investing in any of the stocks in the index.

Our commitment to investors is to keep HSBC ETFs as straightforward and simple as possible, with a tight control of risk. The physical investment method is therefore the default investment approach we will use for all our ETFs.

Every day, HSBC ETFs publish full lists of securities that they hold, in addition to fund factsheets on our website: www.etf.hsbc.com. This allows our current and potential investors to understand our funds’ investment objectives and the risks to which they are exposed.
What are the risks?

Market risk: The value of investments and any income from them can go down as well as up, and investors may not get back the amount originally invested.

Currency risk: Where overseas investments are held, the rate of currency exchange may cause the value of such investments to go down as well as up.

Emerging market risk: Investments in emerging markets are by their nature higher risk and potentially more volatile than those inherent in some established markets.

Geographic risk: Some ETFs invest predominantly in one geographic area and, therefore, any decline in the economy of this area may affect the prices and value of the underlying assets.

Property risk: The value of interests in real estate companies may be affected by changes in interest rates, tax laws and environmental laws and regulations. While the value of interests in REITs may be affected by the value of the property owned or the quality of the mortgages held by the trust.

Russian risk: There are significant risks inherent in investing in Russia, which could affect the value of investment. These include a lack of clarity in laws and regulations in the following areas: investor protection, banks and other financial services, the Russian economic system, taxation, transaction settlement and fiduciary duty and responsibilities of company management.

Investors and potential investors should read the relevant Key Investor Information Document (KIID) and full prospectus and supplement for full details of the risks involves prior to making a decision to invest. If you have any doubt about the suitability of an investment you should consult a financial adviser.
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HSBC ETFs are sub-funds of HSBC ETFs plc, an investment company with variable capital and segregated liability between sub-funds, incorporated in Ireland as a public limited company, and authorised by the Central Bank of Ireland. The company is constituted as an umbrella fund, with segregated liability between sub-funds.

Shares purchased on the secondary market cannot usually be sold directly back to the Company. Investors must buy and sell shares on the secondary market with the assistance of an intermediary (e.g. a stockbroker) and may incur fees for doing so. In addition, investors may pay more than the current Net Asset Value per share when buying shares and may receive less than the current Net Asset Value per Share when selling them.

For investors in the UK

All applications are made on the basis of the current HSBC ETFs plc Prospectus, relevant Key Investor Information Document ("KIID"), Supplementary Information Document (SID) and Fund supplement, and most recent annual and semi-annual reports, which can be obtained upon request free of charge from HSBC Global Asset Management (UK) Limited, 8 Canada Square, Canary Wharf, London, E14 5HQ. UK, or from a stockbroker or financial adviser. Investors and potential investors should read and note the risk warnings in the prospectus, relevant KIID, SID and Fund supplement. UK-based investors in HSBC ETFs plc are advised that they may not be afforded some of the protections conveyed by the Financial Services and Markets Act (2000), ("the Act"). The company is recognised in the United Kingdom by the Financial Conduct Authority under section 264 of the Act.

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