Liquidity – shrinking when it's most needed

A review of liquidity in London since 2016

By Hardman & Co, in collaboration with Winterflood Securities

Winterflood SECURITIES

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Summary

- Liquidity is the lifeblood of equity markets.
- Following the events at the Woodford Equity Income Fund (WEIF) in 2019, professional investors, increasingly, focus on liquidity when making investment decisions.
- However, this paper shows that liquidity declined significantly between 2016 and 2022. Our work demonstrates that, in 2016, the total value traded of trading companies listed on the London Stock Exchange (i.e., excluding investment companies and financials) was 60.6% of their average market capitalisation in that year. By 2022, that percentage had fallen to 44.3%.
- Thorough analysis shows this decline is common to the Main Market and AIM, to nine out of 11 of the market capitalisation size bands we have analysed and to nine out of 11 super sectors.
- In some respects, the impact of this decline is more significant for small and mid-cap companies. That is because institutional investors will consider how many pounds million can be easily invested, rather than the percentage traded, when deciding on investments. Thus, as percentage liquidity falls, an increasing number of smaller companies will fall below a minimum threshold.
- We have worked with Winterflood Securities, a major market participant, to reach a deeper understanding of the role of retail investors in liquidity today, via the Retail Service Provider network.
- We consider the consequences of falling liquidity and outline some suggestions to help company management teams improve liquidity in their shares.
- Finally, we briefly consider whether the proposals from the Treasury will improve liquidity.

Liquidity – good or bad?

The London equity market is under a particular spotlight at the moment, and many commentators worry whether its global significance is threatened. Participants are concerned about issues such as the decline in IPOs, the "loss" of IPOs to Wall Street, the shrinking number of quoted companies, listing rules, and the availability of research.

This report seeks to understand another fundamental aspect of healthy markets about which participants are concerned – liquidity. Indeed, it is difficult to describe an exchange as a market if it rarely trades. This paper seeks to answer the question of what has really happened to liquidity. We also consider ways that companies can improve liquidity in their own shares and, with the help of a leading market player, put more colour on the impact of retail investors, which, many believe, is at least part of the answer to the liquidity shortage.

What is liquidity?

The Oxford English Dictionary defines liquidity as *"the availability of liquid assets to a market or company"*, with liquid assets being *"a high volume of activity in a market"*. In short, liquidity is the lifeblood of markets and measuring it over time is a way of gauging a market's health.

Why does it matter?

Some investors have always kept an eye on liquidity. The primary reason is that they need to know how easy it will be to build their normal size position in a stock – and to get out of it when they come to sell; understandably, this mainly applies to professional investors.

An increased focus on liquidity is one consequence of the "Woodford events"

However, many professional investors paid little attention to liquidity, until the events surrounding WEIF became public. This open-ended fund was subject to a wave of redemptions, which, at first, was met by selling holdings in liquid FTSE 100 companies; as these holdings were exhausted, the manager was left with holdings in smaller companies, for which it struggled to find buyers. Eventually, the fund had to be "gated", i.e., dealings were suspended.

Subsequently, the Treasury Committee of the House of Commons investigated the events. The Financial Conduct Authority (FCA) provided a report to the committee, which analysed the remaining WEIF holdings by the average number of days it would take to get out of each holding.[1] The FCA then sent a letter to fund managers highlighting their responsibility to pay attention to the liquidity of their portfolios.

Today, the compliance community takes the issue of liquidity very seriously and, for fund managers, it is a fundamental part of their investment decisions.

The consequences of low liquidity

Low liquidity leads to less interest from investors and companies. Companies find it harder to get funding and investors have fewer opportunities.

So, what would happen if liquidity were to continue to fall? First, the interest of some investors, principally institutions, would wane; for example, they might want to restrict their investments to liquid, FTSE 100 companies. As volumes fell, market-makers would find it trickier to make two-way prices; spreads might widen, and quoted sizes shrink. Eventually, the vicious circle would cause the market to move to an auction basis, and finally become indistinguishable from trading in private companies. It would be a downward spiral that could feed on itself.

Lower liquidity makes a share, or market, less appealing to investors. Of course. there are investors who will buy private companies, but they know they will probably be locked in, having to wait for an occasion to sell, if at all. In contrast, most investors prefer the flexibility of a public market, where they can more easily buy or sell at will.

As liquidity falls, it becomes more difficult for companies to raise money, invest in their businesses and create jobs. Additionally, if there are fewer investors interested in a company, it generally means that the valuation will be lower.

[1] Letter from Andrew Bailey, then CEO of the Financial Conduct Authority, 18 June 2019: *www.parliament.uk/globalassets/documents/commons-committees/treasury/correspondence/2017-19/letter-from-fca-chief-executive-to-chair-re-woodford-180619.pdf*. Obviously, this was a backward-looking measure of portfolio liquidity and not a forecast of how long it would actually take to liquidate the position.

Defining liquidity

There are many ways to define liquidity

Liquidity in equity markets can be measured in many ways and different investors will look at it in different ways. Obviously, all of these measures are backward-looking.

1. **The number of days traded:** Even if just one share changes hands, that day is considered a "traded day". The investor then compares the number of traded days to the total number of days on which an equity could have traded in any one year. The resulting percentage is the measure of liquidity; the higher the better. This measure is crude and not widely used.

2. **The pounds million traded in a year:** Imagine a £1bn fund with 20 holdings of £50m each. The fund manager might use the pounds million traded in the year to judge how long it would take to build his normal position (£50m worth of shares), and, eventually, to get out of it. In its submission to the Treasury Committee of the House of Commons about the WEIF, the FCA measured the liquidity of the fund in terms of the average number of days traded it would take to sell each position. Generally, the larger the market cap of a company, the larger the £m traded in a year, thus a larger company, generally, will score better on this measure.

3. **The normal market size:** This is the size that one can easily deal in with a market-maker in one shot. In a sense, it is the measure of immediate liquidity. It has its value as a measure, but we prefer to use a longer-term measure of liquidity.

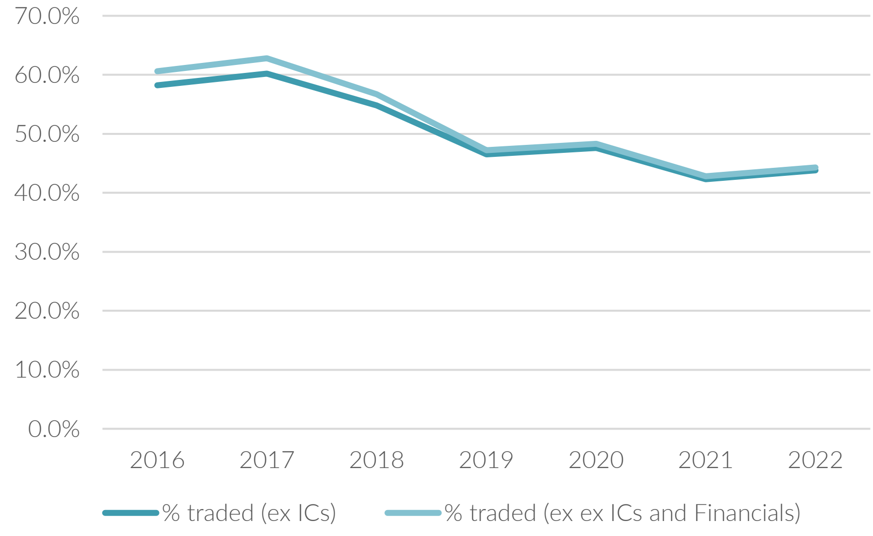
4. **The percentage of the share capital traded in a year:** This measure compares the total number of shares traded in a given period with the average number of shares in issue in that period. The average number of shares in issue is calculated by using the average of the number of shares in issue on the first and last trading days of the year. Another way to assess this is to compare the total value traded with the average market capitalisation for the calendar year, which is the method used in this paper. The higher the percentage of shares traded, or ratio of value traded to market cap, the more liquid a company's shares are. So, if the result is 100%, it means that an investor could, theoretically, have bought the entire company in the year, or sold it. This is misleading, though, because, for example, it might be that the same 10% stake changed hands 10 times! While we recognise that the other measures have their uses, this is our preferred measure to assess a market, because i) it is calculated over a long time period, and ii) it is blind to a company's market cap.

However, as with all methodologies, the fourth measure does need to be taken in context and does have downsides. See the *Methodology* section for an explanation of these.

Liquidity over time – the whole market

Market liquidity has declined

Liquidity for the whole market – % of equity traded 2016-22



Source: Refinitiv, London Stock Exchange, Hardman & Co Research

The chart above looks back to 2016. It uses our preferred methodology for measuring liquidity, comparing the total value traded with the average market cap for each calendar year for two cohorts of companies:

- LSE-listed companies, excluding "funnies" and investment companies; and
- LSE-listed companies, excluding "funnies", investment companies and financials, leaving us with what most commentators would describe as "trading companies".

For more detail on the definitions, refer to the *Methodology* section, later in this report.

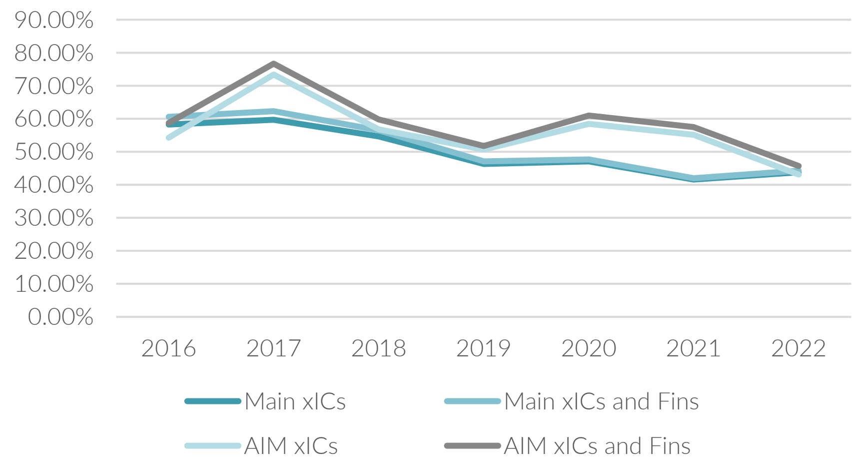
The message seems clear. Over the period considered, liquidity has declined. 60.6% by value of trading companies' market cap (as defined in this report) was traded in 2016; in 2022, the percentage was just 44.3%. The line in the chart does show that, in some years, the percentage improved on the previous year. Nevertheless, the chart demonstrates a very clear downtrend over the period.

Given that the baskets are freshly constructed for each year, our method of collecting data means that some companies will not be included in every year. Some companies will have joined the market in this six-year period, while others will have left.

There are other public equity markets in the UK, such as Aquis and IPSX, but in the interests of making the workload manageable, we have not included these in our analysis.

Liquidity over time – Main vs. AIM

Main vs. AIM – % of equity traded 2016-22



Source: Refinitiv, London Stock Exchange, Hardman & Co Research

The message on liquidity seems consistent across markets

This chart breaks our data between the Main Market and AIM. Overall, the story is the same in both markets, a decline in liquidity. It is worth pointing out that the market basket to which a company is allocated (i.e., Main Market or AIM) is determined by the venue on which it is listed in each calendar year. In other words, some companies will have moved between the two over the period.

The detail of the chart is that Main-listed trading companies (excluding investment companies and financials) saw liquidity fall from 60.6% to 44.3% over the period, while AIM trading companies' liquidity went from 58.7% to 45.7%.

Liquidity over time by market cap bands

To eliminate any confusion, we publish the full details for the data by market cap size in table format:

% traded by market cap band 2016-22

Market cap	2016	2017	2018	2019	2020	2021	2022	2022 vs. 2016
<£100m	42.4%	66.0%	50.7%	49.7%	72.7%	86.6%	47.3%	4.9%
£100-200m	33.0%	40.5%	36.0%	34.1%	56.6%	45.7%	30.8%	-2.2%
£200-300m	46.8%	50.3%	36.6%	31.0%	34.5%	58.7%	37.2%	-9.6%
£300-400m	52.5%	44.1%	40.7%	30.8%	37.8%	48.8%	34.2%	-18.3%
£400-500m	37.2%	43.6%	50.6%	37.6%	44.9%	50.3%	50.4%	13.2%
£500-600m	49.2%	64.4%	39.5%	37.2%	45.4%	58.0%	38.1%	-11.1%
£600-700m	58.5%	70.1%	43.9%	54.7%	48.0%	58.4%	43.0%	-15.5%
£700-800m	49.7%	62.8%	70.5%	48.8%	55.3%	38.1%	47.1%	-2.6%
£800-900m	57.9%	63.7%	61.5%	52.7%	33.9%	60.8%	36.2%	-21.7%
£900m-1bn	47.8%	59.3%	42.9%	39.2%	50.1%	29.3%	31.5%	-16.3%
£1-2bn	61.7%	75.7%	63.0%	52.4%	50.2%	48.9%	46.6%	-15.1%
>£2bn	90.5%	90.9%	80.8%	64.7%	76.1%	50.1%	58.4%	-32.1%

Source: Refinitiv, London Stock Exchange, Hardman & Co Research

In the table above, the data displayed is for trading companies only; i.e., neither investment nor financial companies are included. Companies are allocated to a market cap size band each year, based on their average market cap in the calendar year; thus, a company could be in a different size band every year in the table.

Clearly, as we focus down on a narrower set of companies, any one company can have a "disproportionate" impact on the result.

The central message from the table is that, in only two of the 11 size bands, liquidity improved over the period surveyed. The largest decline in liquidity was in companies with market caps above £2bn. However, this is misleading in a way because, even after this fall, liquidity at the top end of the market remains far better than that at the lower end. Indeed, the lower end's liquidity is exaggerated by some extraordinary results for individual companies. The table below shows, for each calendar year, the three stocks with the largest results for liquidity:

Liquidity at the lower end is worse than it appears because of the impact of extreme results for a few smaller companies

Three largest results for companies with mkt. cap. below £100m, by year

Year	Company	Largest % of value traded
2016	Chill Brands Group plc	1,578.9%
	eenergy Group plc	1,441.4%
	Alien Metals plc	1,225.9%
2017	URU Metals Ltd	2,145.5%
	Physiomics plc	1,727.6%
	Infinity Energy SA	1,592.8%
2018	Cizzle Biotechnology Holdings plc	873.9%
	hVIVO plc	810.6%
	TomCo Energy plc	699.4%
2019	Iconic Labs plc	6,004.9%
	ADM Energy plc	1,588.9%
	I3 Energy plc	1,161.7%
2020	Catenae Innovation plc	2,222.2%
	Mobile Streams plc	1,878.7%
	Genedrive plc	1,813.8%
2021	Horizonte Minerals plc	1,379.4%
	Ridgecrest plc	1,338.6%
	Genedrive plc	1,279.4%
2022	Vast Resources plc	2,054.9%
	Clontarf Energy plc	1,920.6%
	Cloudbreak Discovery plc	1,128.7%

Source: Refinitiv, London Stock Exchange, Hardman & Co Research

Liquidity over time – by sector

Liquidity over time, by sector

	2016	2017	2018	2019	2020	2021	2022	% change in industry (2016-22)	Trend lines
Basic Materials	77.2%	67.4%	60.4%	47.1%	38.9%	41.3%	49.1%	-28.1%	
Consumer Discretionary	73.5%	83.1%	74.5%	60.8%	66.3%	54.4%	51.3%	-22.2%	
Consumer Staples	44.5%	48.9%	42.8%	38.4%	39.7%	31.6%	36.0%	-8.5%	
Energy	51.6%	39.8%	41.1%	39.4%	46.5%	50.1%	55.3%	3.7%	
Financials	46.7%	47.2%	45.1%	41.5%	43.6%	39.9%	39.6%	-7.1%	
Health Care	57.0%	58.8%	52.7%	38.2%	44.4%	36.8%	31.8%	-25.2%	
Industrials	66.2%	77.4%	69.3%	54.4%	51.0%	42.5%	42.3%	-23.9%	
Real Estate	60.3%	63.8%	55.8%	51.5%	51.7%	43.5%	50.9%	-9.4%	
Technology	65.1%	78.9%	67.1%	59.3%	50.8%	49.9%	42.4%	-22.7%	
Telecommunications	56.0%	60.9%	58.9%	51.5%	50.9%	52.7%	61.8%	5.8%	
Utilities	65.0%	80.2%	74.4%	60.4%	57.5%	44.5%	54.6%	-10.4%	

Source: Refinitiv, London Stock Exchange, Hardman & Co Research

In the table above, we show data for all companies, including financials and investment companies. We use the sector allocations for each calendar year; thus, a company could be in a different sector every year in the table. As before, focusing down on a narrower set of companies means any one company can have a disproportionate impact on the result.

The message remains the same – in only two (Energy and Telecommunications) of the 11 super sectors did liquidity improve over the period surveyed.

Retail can be your friend to improve liquidity

The role of retail in liquidity

A healthy equity market needs investors to be buying and selling all the time, with different benchmarks, aims and time horizons. An unhealthy market can occur when all investors share the same outlook, and, as a result, will all be buyers or sellers at the same time. This is often the case at the smaller end of the market when a small group of fund managers can dominate the share register and share the same time horizons and ways of looking at stocks, a kind of group-think.

One group of investors that have a variety of time horizons and ways of looking at companies is retail investors. Moreover, they are, generally, not put off by poor liquidity when considering investments because they are much smaller in size than professional investors.

Retail investors have become more important to the market in recent years as their aggregate ownership has grown. Hardman & Co has written extensively about this,[2] using data from the Office for National Statistics (ONS) surveys of ownership of UK shares, which take place every two years. The ONS work also shows the decline of the traditional UK institution, which owned 68.2% of the market in 1981, but just 31.6% in the latest survey (the data is from 2020).

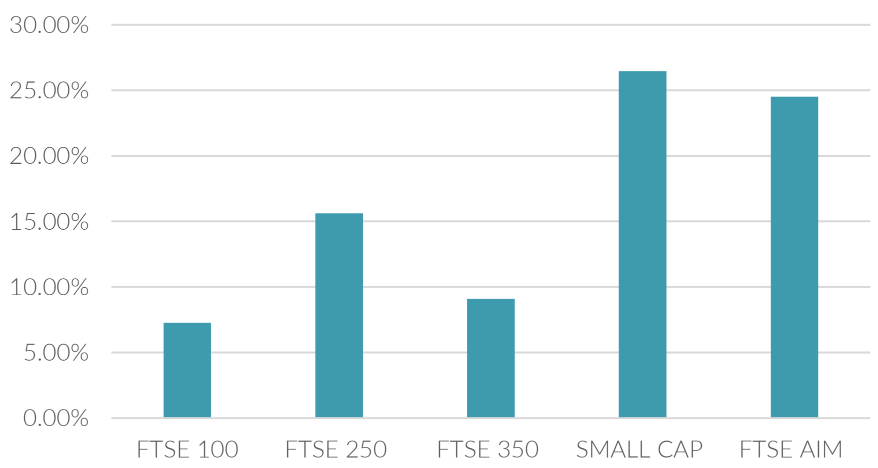
[2] Hardman & Co *Latest ONS survey: steady as she goes…and ignore retail investors at your peril*, 9 May 2022: https://hardmanandco.com/latest-ons-survey-steady-as-she-goesand-ignore-retail-investors-at-your-peril

We are grateful for the contribution of Winterflood Securities to this report, which has provided us with data on the Retail Service Providers (RSP) system. Winterflood is one of more than 20 Electronic Liquidity Providers (ELPs), which supply consistent two-way pricing and liquidity to the RSP system. When a retail investor places an electronic order with his broker or platform, that order is submitted to ELPs, which will make a quote in that stock. The retail investor will be shown the best offer (for a purchase) or best bid (for a sale) of the competing ELPs, and has a short window (15-30 seconds) to accept. The size in which the price is made is limited but should be sufficient for most retail trades.

Winterflood's data opens the lid on a part of the market

Winterflood has worked with the available data to estimate the share of retail trading via the RSP system across the whole market. As with all data, there are some caveats. Principally, these are that Winterflood has used an estimate of their market share among all competing ELPs to come up with the percentages for the whole retail market, as presented here; we are comparing the data for shares traded against the LSE trade reporting (lacking a "consolidated tape" in the UK – see *Methodology* section below for more) and this does not capture all retail trading, some of which is conducted outside the RSP system. If the data for the Aquis exchange were incorporated, some percentages are likely to be quite a bit higher.

RSP share of the whole market, by index, in calendar 2022



Source: Winterflood Securities, London Stock Exchange, Hardman & Co Research

Most notable from this chart is that, in 2022, the RSP part of retail trading alone accounted for 26.5% of all trading by volume in the companies in the Small Cap index and 24.5% on AIM.

This is likely to increase, as the factors that have driven direct retail investment in the equity market (such as Self-Invested Pension Plans, greater access to sponsored research and information on websites) are not going away. These influences are being reinforced by governance considerations (a movement to treat retail fairly and not as second-class citizens, part of the ESG agenda) and by the direction of regulatory movement; a recent example of this being the *UK Secondary Capital Raising Review*, led by lawyer Mark Austin, which suggests compulsory involvement of retail in secondary fund raisings.[3]

[3] UK Secondary Capital Raising Review, July 2022: www.gov.uk/government/publications/uk-secondary-capital-raising-review

Why has liquidity fallen?

There are three key factors behind the decline

We believe that many factors have contributed to the decline in liquidity that we have measured:

- Woodford. The events discussed above have contributed to a more cautionary approach to investment by professional investors. Not wanting to invest in companies, whose shares are considered too illiquid, only further reduces the liquidity in those shares. It is ironic that, at the same time as professional investors have paid more attention to liquidity in public markets, many have been increasing their allocation to relatively illiquid private equity funds.

- In 1981, 68.2% of LSE-listed companies was owned by UK institutional investors; by 2020, that figure had fallen to just 31.6%.[4] There are many factors behind this decline, but one that is attracting attention is the shift of pension fund assets from equities into bonds and other assets.

- A recent paper from the Capital Markets Industry Taskforce shows how the allocations by domestic pension funds has changed: *"Over the past 25 years, UK pension funds have reduced their allocation to equities from 73% to 27% – and they have slashed their allocation to UK equities from 53% to just 6%"*.[5]

Ways to improve liquidity?

There are some practical steps management can take

So, if the lack of liquidity is an issue that a company management recognises, what can they do to improve it?

Overhaul corporate communications so that individual stocks stand out

- **Websites:** Revamp the company website and ensure it features high-quality, engaging content that sets out the corporate story clearly. The use of websites and the internet by investors seems to have lagged their use elsewhere. However, Hardman & Co's experience is that traffic has grown dramatically in the past few years. Companies need high-quality content for their sites, such as sponsored research.

- **Retail investor events:** The QCA and Hardman & Co jointly published a paper in November 2022[6] about the impact of such events. There was evidence that such engagement could significantly improve liquidity.

- **Invest in financial public relations** and investor relations support to develop the company narrative and advise on where, when and how to tell it.

[4] Data from surveys conducted by the Office for National Statistics. For more information see Hardman & Co report, *Latest ONS survey: steady as she goes…and ignore retail investors at your peril*, May 2020: https://hardmanandco.com/latest-ons-survey-steady-as-she-goesand-ignore-retail-investors-at-your-peril

[5] Capital Markets Industry Taskforce, *Unlocking the capital in capital markets*, March 2023: https://capitalmarketsindustrytaskforce.com/wp-content/uploads/2023/03/2023.03-Unlocking-the-capital-in-capital-markets-New-Financial.pdf

[6] QCA/Hardman & Co, *A different kind of beat: Boyzone, 1996: Quoted company engagement with retail investors – a new world*, November 2022: https://hardmanandco.com/research/corporate-research/a-different-kind-of-beat-boyzone-1996

More research

- Increase the volume and value of equity research to inform trading decisions: One solution might be to introduce stock exchange-sponsored research, similar to the models used in many overseas markets, including Germany, Australia and Israel, where the cost of analysis is subsidised by the market operator.

- **Sponsored research:** This is research about a company or fund, which is paid for by that issuer. It has become much more common practice for companies to engage with a sponsored research house, partly because, unlike brokers' research, it can be made available to every type of investor. Professional investors can consume it without breaching the MiFID II rules (covered by clause 12.3), and, as long as it meets certain criteria, it can be made available to retail investors without conducting a "know your client" exercise. Good, sponsored research not only has credibility but is seen to be independent of management. Furthermore, if seasoned professionals are used, they will discern, better than management, to whom the stock will appeal and can address the questions these investors are most likely to ask. Hardman & Co is the longest-established sponsored research house in London.

- **Increase confidence in sponsored research:** Establishing a code of conduct that details how it is issued, funded and regulated would help.

- **Media coverage:** Getting its message in the press can help a company's profile. However, this is becoming increasingly difficult, especially for small and mid-sized quoted companies. The reduction in the pool of financial journalists is the main reason.

- **Release more news:** This is a suggestion from the QCA/Peel Hunt survey. More relevant news keeps your story in investors' minds. Research from a sponsored research house can be part of the solution. For example, Hardman & Co's research is released into the Regulatory News Service (RNS) stream.

Channel more funds back into the small cap end of the market where the liquidity challenge is greatest

- Mandate UK pensions to increase their exposure to UK equities.

- Retool the Pension Protection Fund as a superfund that can take on more risk and buy more equities.

- Make greater UK equities exposure a condition for ISA funds that wish to continue their tax shelter.

- Introduce a new type of investment vehicle that builds on the success of Venture Capital Trusts (VCTs), permitting a wider set of investors and less tax relief than VCTs but still rewarding long-term investment in UK-registered public companies below a particular market capitalisation.

- Relax financial promotion rules so that research on small and midcap quoted companies can be made more freely available to retail investors.

Some hopeful signs from government reviews

Hope springs from the recognition of the problems and cross-party support to improve things

The good news is that the problems in London's capital markets have been recognised and there seems to be cross-party support for tackling them.

There seem to be more government-sponsored reports than fingers on two hands. The topics range from encouraging retail participation in secondary fund raises to persuading big pension funds to invest more in UK-quoted shares. For this paper, most relevant is the Treasury review into investment research, headed by Rachel Kent.

The review into research recommends:

- creating a new research platform that commissions research, perhaps partly paid for by a rebate of Stamp Duty;
- rolling back some of the MiFID II regulations on institutions;
- easier access to research for retail investors;
- involving academic institutions in supporting investment research initiatives;
- supporting issuer-sponsored research by implementing a code of conduct;
- clarifying aspects of the UK regulatory regime for investment research and consider introducing a bespoke regime; and
- reviewing the rules relating to investment research in the context of IPOs.

Collectively, these initiatives should have a positive impact on liquidity. Obviously, the devil is in the detail. Nevertheless, we end this report with hope. The problem has been recognised; those that matter now understand the issues. There are some very ambitious proposals around. The Autumn Statement, in November, might help crystalise some of these recommendations and even bring forward more.

Methodology

1. **Calculating the percentage traded in any one year:** In this report, we calculate the percentage traded by dividing the total value of shares traded in each calendar year for all the companies included in the basket in question, by the average of market cap of all the companies on the first and last trading day of each calendar year.

   The perfect calculation using this methodology would involve creating an annual measure by creating an annual average from the market cap for every trading day. This report's data and charts use the average of the opening and closing market cap in each calendar year. This might be misleading in individual cases because, effectively, it assumes that, if the number of shares in issue (one of the components of market cap) changes in the year, it happens exactly in the middle of the year. However, it might be that the company issues more shares on day two of the year, in which case, the annual average we used will be understated; issuing new shares on day 364 of the year would mean that our average is overstated. However, by using baskets of shares in this report, these drawbacks for individual companies should, by and large, even each other out.

2. **Capturing shares traded:** We do not have a "consolidated tape" in the UK. In a consolidated tape, the trading data from every trading venue is pulled together to give a total figure for each day. We have used figures from the LSE. This might be particularly misleading for some companies, which trade on several venues. The "Edinburgh Reforms", a series of measures announced by Jaremy Hunt, the Chancellor of the Exchequer, on 9 December 2022 include the ambition "*Committing to having a regime for a UK consolidated tape in place by 2024*".[7]

3. **Our cohort of companies:** All the data used in this report refer to companies listed on the LSE, excluding companies that most investors would not regard as London stocks, the "funnies" such as Boeing; the London quote is very much a secondary one. We have also excluded preference shares, warrants, rights, etc. quoted on the LSE.

4. **All companies:** When we use this term, it means all the LSE-listed companies less those mentioned in point 3 above.

5. **All companies, less investment companies:** When we use this term, it means all the LSE-listed companies less those mentioned in point 3 above AND excluding the following sectors:
   a. Closed End Investments
   b. Equity Investment Instruments
   c. Open End and Miscellaneous Investment Vehicles
   d. Nonequity Investment Instruments
   e. Real Estate Investment Trusts

[7] *Financial Services: The Edinburgh Reforms*, 9 December 2022: https://www.gov.uk/government/collections/financial-services-the-edinburgh-reforms

6. **Trading companies:** When we use this term, it means all the LSE-listed companies less those mentioned in point 3 above AND excluding these investment companies and financials sectors. The excluded sectors are:
    a. Banks
    b. Closed End Investments
    c. Equity Investment Instruments
    d. Finance and Credit Services
    e. Financial Services
    f. General Financial
    g. Investment Banking and Brokerage Services
    h. Life Insurance
    i. Non-equity Investment Instruments
    j. Non-life Insurance
    k. Open End and Miscellaneous Investment Vehicles
    l. Real Estate Investment and Services
    m. Real Estate Investment Trusts

7. **Main vs. AIM:** One way we have analysed our cohort of companies is to compare Main Market stocks with AIM ones. We use the market on which each company is listed on the last trading day of the calendar year to determine the bucket in which it is included.

8. **Market capitalisation (market cap) bands:** In this report, one of the ways by which we have analysed the data is to put the companies into market cap bands. The band in which a company is included is determined by the market cap on the last trading day of each calendar year.

9. **Sector definitions:** The sector in which a company is included is determined by its sector allocation on the last trading day of each calendar year.

About…

About Hardman & Co

We are a rapidly growing, innovative sponsored research and consultancy business, based in London, serving the needs of both public and private companies.

Our expert team of nearly 35 sector analysts and market professionals collectively, has more than 400 years of experience. This depth of knowledge and a reputation for integrity have built trust with investors. With effective communication and precision distribution, we help companies disseminate their investment message to interested investors.

Our smaller, boutique structure allows us to provide first-class customer service and to deliver a wide range of *ad hoc* services for multiple clients with different needs.

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About Winterflood Securities

Winterflood Securities is a leading market maker committed to providing liquidity and flexible execution services to retail brokers, asset managers and institutional investors. Winterflood's strengths are a combination of traditional trading values and the performance of our own cutting-edge technology.

Our experienced team of traders helps clients achieve high-quality execution in over 15,000 tradable instruments, including UK, European and North American Equities together with Investment Trusts, Exchange Traded Products, Fixed Income, Structured Products and Funds.

Founded in 1988, Winterflood has gone from being a niche market maker in the UK Small Cap market, to a mature, diverse, and major liquidity provider across multiple asset classes in the UK and European markets. Winterflood is authorised and regulated by the Financial Conduct Authority.

Winterflood Securities is a wholly owned subsidiary of Close Brothers Group plc, which is listed on the London Stock Exchange and is a member of the FTSE 250.

www.winterflood.com

About the authors

Keith Hiscock is the Chief Executive of Hardman & Co

Keith has published a number of papers on the issues facing companies and markets in today's climate.

His career in stockbroking started 43 years ago at James Capel, at the time, the top-ranked research house in London. He was a founding member of Schroder Securities and of Agency Partners, a leading research boutique, and was a member of the five-man securities board at Evolution. Keith has also advised companies, large and small, on their relationships with the capital markets

Yingheng Chen is a senior financial analyst at Hardman & Co

Yingheng has collaborated in most of Hardman & Co's think pieces. Yingheng joined Hardman & Co in 2008. She holds the Chartered Financial Analyst Level 2 qualification, together with a BSc in Economics from the London School of Economics.

Matt Wilkinson is Director & Head of Trading at Winterflood Securities

Matt joined Winterflood Securities as a Corporate Actions Clerk in 1997. He became a Small Cap Dealer in 2001 before becoming a Senior Dealer for AIM in 2005. He was later appointed to the role of Associate Director in 2014 and Head of AIM in 2018. In 2019, Matt was appointed to Director & Deputy Head of Trading, following which he was promoted to Director & Head of Trading in September 2022.

Andrew Stancliffe is Head of New Business Development & Growth Opportunities at Winterflood Securities

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The full detail is on page 26 of the full directive, which can be accessed here: http://ec.europa.eu/finance/docs/level-2-measures/mifid-delegated-regulation-2016-2031.pdf

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