

FTSE UK Index Series Guide to Calculation Method for the Median Liquidity Test

v2.8



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Section 1

Purpose of the guide

1. Purpose of the guide

1.1 The aims of the guide are:

1. to describe how the liquidity test is conducted; and
2. to make it easier for users to replicate the liquidity test to support their investment and trading activities.

Section 2

Liquidity screening process

2. Liquidity screening process

2.1 Liquidity test

2.1.1 Testing period

Each security will be tested for liquidity annually in June by calculation of its monthly median of daily trading volume.

For the annual test, liquidity will be calculated from the first business day in May of the previous year to the last business day of April in the current year.

2.1.2 Liquidity screen

- For each month, the daily volume for each security is calculated as a percentage of the shares in issue for that day, adjusted by the free float at the end of the month. These daily values are then ranked in descending order and the median is taken by selecting the value for the middle-ranking day if there are an odd number of days and the mean of the middle two if there are an even number of days. See section 3 for further details.
- Where the testing period is less than 12 months, the liquidity test will be applied on a pro-rata basis. See Appendix A.
- When calculating the median of daily trading volume of any security for a particular month, a minimum of five trading days in that month must exist, otherwise the month will be excluded from the test.
- Daily totals with zero trades are included in the ranking; therefore, a security that fails to trade for more than half of the days in a month will have a zero median trading volume for that month.
- Only exchange trading days will be included in the calculation, i.e. exchange holidays will be excluded.
- Any period of suspension will not be included in the test.
- Where a security has a market quote in multiple currencies, only volume data from the eligible Sterling quote will be used in the liquidity test.
- Where a security transfers from AIM or moves from an ineligible main market listing category (e.g. Equity Shares (transition), Equity Shares (international commercial companies secondary listing) or Equity Shares (shell companies) categories) to an eligible main market listing category (see Section 4 of the FTSE UK Index Series Ground Rules), the security will be tested from the first day of unconditional dealings on the eligible category listing. For the avoidance of doubt, any period of trading prior to the eligible category listing will not be included in the liquidity test.
- Where a new issue or newly eligible security passes the annual liquidity test but fails the minimum investable market capitalisation threshold for index inclusion in June, the security will be reassessed at the subsequent September, December and March quarterly reviews, and liquidity will be retested from the first day of unconditional dealings on the eligible category listing to the index review cut-off date.

2.1.3 Liquidity thresholds

Please note that when conducting the liquidity test, no rounding is applied. For example, a constituent company with a monthly median turnover of 0.0149% will not be deemed to have passed the minimum 0.0150% threshold for the month tested.

- A – securities that do not turnover at least 0.0250% of their shares in issue (after the application of any investability weightings*) based on their monthly median for at least 10 of the 12 months prior to the annual index review will not be eligible for inclusion in the FTSE UK Index Series until the next annual review.
- B – an existing constituent that does not turnover at least 0.0150% of its shares in issue (after the application of any investability weightings*) based on its monthly median per month for at least eight of the 12 months prior to the annual index review will be removed and will not be eligible for inclusion in the FTSE UK Index Series until the next annual review.
- C – new issues or newly eligible securities that do not have a 12-month trading record must have a minimum 20-day trading record when reviewed. They must turnover at least 0.0250% of their shares in issue (after the application of any investability weightings*) based on their monthly median each month on a pro-rata basis since the eligible category listing or UK nationality assignment date if non-UK incorporated (refer to Appendix A and B).

This rule will not apply to new issues added under the fast entry rule except for demutualisations (see rule 6.5 of the FTSE UK Index Series).

*When testing liquidity, the published free float weight on the final trading day of each month will be used for the calculation of the liquidity test for that month.

- D – a new issue that fails the liquidity test will not be eligible for inclusion in the FTSE UK Index Series until the next annual review.
- E – at the sole discretion of FTSE, the above percentage figures may be adjusted by up to 0.010% at a market review so that, in FTSE's opinion, the index better reflects the liquid investable market. This discretion may only be exercised across the FTSE All-Share Index and may not be applied to individual securities. If FTSE intends to exercise this discretion, it must make a public statement to that effect at least two weeks prior to the regular June review meeting. Any adjusted percentage parameters will be maintained until the next annual review.
- F – there is no liquidity requirement for constituents of the FTSE Fledgling Index. At a quarterly review, if a FTSE fledgling company is eligible for promotion to the FTSE All-Share index, the previous June annual liquidity result will be referenced. When the previous June annual liquidity is not available for the FTSE fledgling company, liquidity will be assessed from the date of eligibility.

2.1.4 Nationality assignment

Sole UK eligible listing

- For new issues or newly eligible securities that have a **sole** UK eligible category listing, no liquidity test is required for the purposes of nationality assignment.
- However, for the purposes of FTSE UK Index Series inclusion, new issues or newly eligible securities that do not have a 12-month trading record must have a minimum 20-day trading record when reviewed at the index review cut-off date.
- They must turn over at least 0.0250% of their shares in issue (after the application of any investability weightings*), based on their monthly median each month on a pro-rata basis since the first day of unconditional dealings of the eligible category listing.

Multiple eligible listings

- a) For new issues or newly eligible securities with multiple eligible exchange listings (as classified in the FTSE Global Equity Index Series), a liquidity test is required (in accordance with the nationality rules of the FTSE UK Index Series).

- b) To determine nationality assignment, the securities will be tested from the first day of unconditional dealings of the eligible category listing until the business day proceeding the nationality screen cut-off date (see FTSE UK Index series review schedule FAQ document for cut-off dates).
- c) A security must demonstrate that it would pass the FTSE UK Index Series liquidity test (on a pro-rata basis) to be assigned UK nationality.
- d) Once a UK nationality has been assigned, for the purposes of FTSE UK Index Series inclusion, liquidity will be tested up to the index review cut-off date.

They must turn over at least 0.0250% of their shares in issue (after the application of any investability weightings*) based on their monthly median each month on a pro-rata basis since the first day of unconditional dealings of the eligible category listing (where UK incorporated) or since the date of UK nationality assignment (where non-UK incorporated).

*When testing liquidity, the published free float weight on the final trading day of each month will be used for the calculation of the liquidity test for that month.

- e) In accordance with rule 5.1.9 of the FTSE UK Index Series ground rules, a nationality assignment will be reviewed in the event that the country with greatest liquidity of an existing constituent is different to that assigned for two consecutive years. The eligible exchanges of listing will be reviewed using 12 month volume data up to the business day proceeding the nationality screen cut-off date.

For illustration purposes: Company X (assigned country A) passes the liquidity test in both country A and country B. When assessed in March 2023, country B now exhibits the greater liquidity (this is counted as year one). The company will remain assigned to country A subject to continuing to pass the liquidity tests. However, if in March 2024 (year two) country B still exhibits the greater liquidity, the company will be reviewed for a nationality change.

- f) For the avoidance of doubt, country of greatest liquidity is determined by comparing each of the monthly median liquidity test % results (as detailed in section 3.2 below), country A vs country B, for a 12-month testing period. For illustration purposes only, if the testing period is January to December, the test looks at how many of those months country A had a greater monthly median liquidity test % result when compared against that of country B. Nationality will be assigned to the country which exhibits the greatest liquidity test % result in the most number of months.

Please note: If as a result of the above, there is an even split (e.g. each country has 6 months where it exhibits greatest monthly median liquidity % when tested over a 12-month testing period), the following treatment shall apply:

- an existing constituent will retain its current nationality.
- a new issue or newly eligible company will have its nationality assignment based on the country which exhibits the greatest liquidity using the latest three months of volume data.

- g) For the avoidance of doubt, where a security has multiple eligible exchange listings and one or more listings has less than 12 months of available trading record, the liquidity test will use the maximum volume data available for each individual listing.

For illustration purposes: company A sole listed on eligible market X in 2019 and then subsequently adopted an additional eligible market Y listing in November 2021. For the March 2022 liquidity test, the full available 12-month volume data for market X will be used while for market Y, volume data since November 2021 will be used in the calculation.

- h) In accordance with rule 5.1.10 of the FTSE UK Index Series ground rules, a nationality assignment will be reviewed should a company make a change to its circumstances (such as a change in incorporation or adoption of an additional listing), The evolution of liquidity may be reviewed for a minimum period of three months up to a maximum period of up to 12 months. The country of greatest liquidity will be assessed as detailed above. At the conclusion of this review, the nationality of the company will either be retained or changed. For the avoidance of doubt, once nationality has been confirmed, liquidity would then need to be greatest in another location for two consecutive years to trigger a switch in nationality

(or until current location fails the liquidity test) in accordance with rule 5.19 of the FTSE UK Index Series ground rules.

Please refer to section 5 of the FTSE UK Index Series for further details on nationality assignments.

2.1.5 See Appendix B: test cases for illustrative examples of liquidity testing periods.

2.1.6 Volume data – trading venues

For the FTSE UK Index Series liquidity screen, volume data will be aggregated from those venues exhibiting a market share of greater than 2%. The trading venues are reviewed annually and assessed using volume data from the first business day of February of the previous year to the last business of January of the current year. Any changes to the trading venues will be announced and reflected in the FTSE UK Index Series ground rules following the March quarterly review and will become effective from the June annual review.

Volume data from the following venues are aggregated for the purpose of the FTSE liquidity test:

- London Stock Exchange;
- Cboe CXE;
- Cboe BXE; and
- Cboe OTC.

Section 3

Liquidity calculation method

3. Liquidity calculation method

3.1 For each month, the daily trading volumes, as a percentage against that security’s free float adjusted shares, are ranked and the median value selected.

Example calculation of daily trading volume %:

Company A has 40m shares in issue, a free float of 50% and a daily trading volume of 20,000 shares.

Daily volume (%) = daily trading volume/free float adjusted shares

$$= 20,000/20,000,000 = 0.1\%$$

Please note:

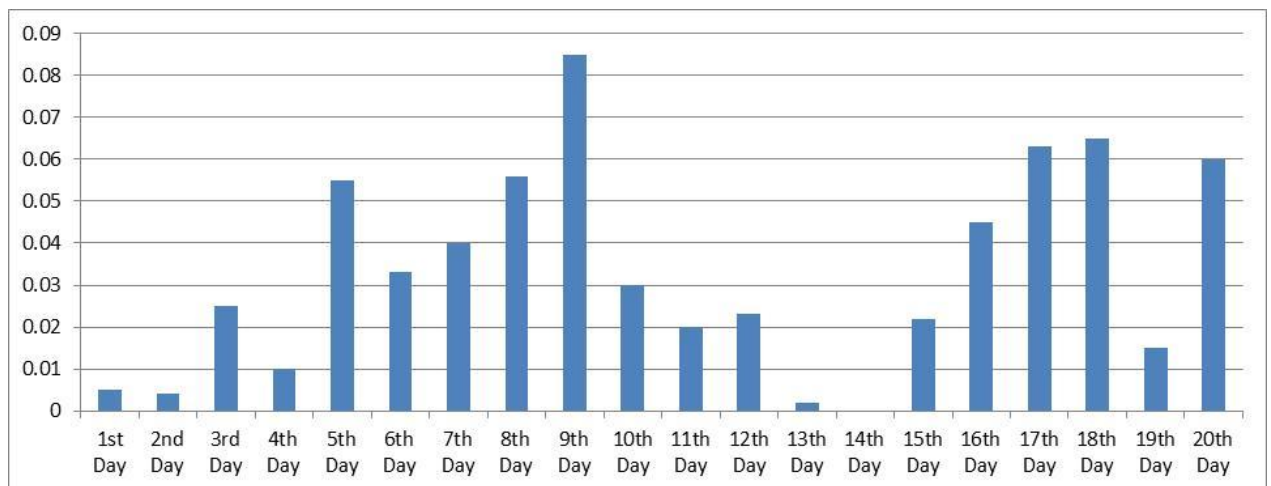
- When testing liquidity, the published free float weight at the end of each month will be used for the calculation of that month.
- Shares in issue used for the calculation is that as of the date of volume traded.

3.2 Monthly median liquidity test

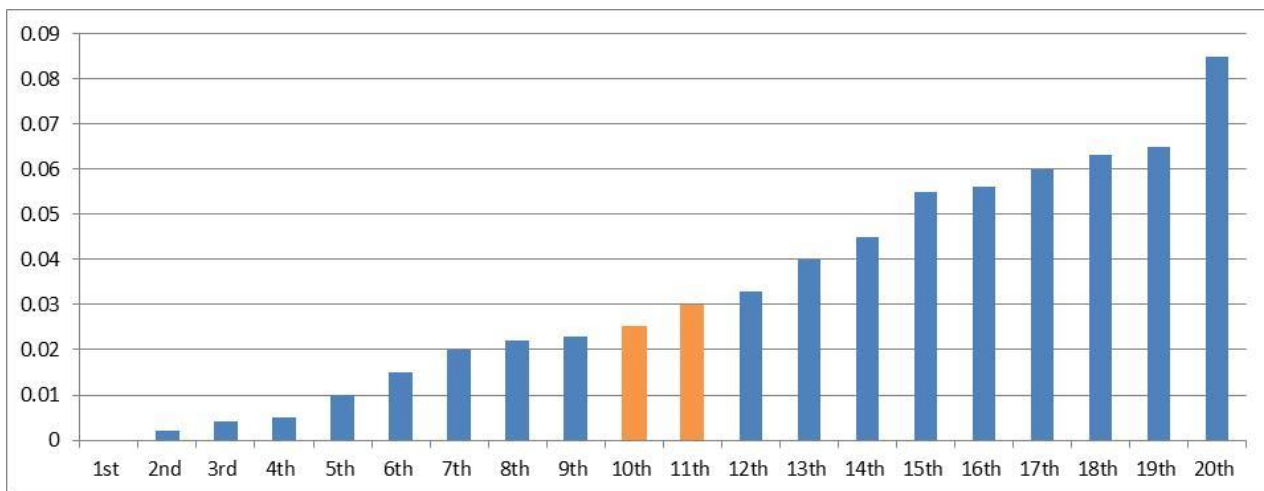
The tables below illustrate the ranking of the daily trading volumes % and the calculation of the median monthly value.

The example assumes that there are an even number of days in the month.

Step one: daily traded volume (%)



Step two: daily traded volume (%) – ranked



Monthly median (%) = (10th + 11th day)/2
= (0.025% + 0.03%)/2 = 0.0275%

Appendix A

Pro-rata pass requirements

New issues and newly eligible

Months tested	Minimum monthly pass rate required
One month	One month
Two months	Two months
Three months	Three months
Four months	Four months
Five months	Five months
Six months	Five months
Seven months	Six months
Eight months	Seven months
Nine months	Eight months
10 months	Nine months
11 months	10 months
12 months	10 months

Current constituents

Months tested	Minimum monthly pass rate required
One month	One month
Two months	Two months
Three months	Two months
Four months	Three months
Five months	Four months
Six months	Four months
Seven months	Five months
Eight months	Six months
Nine months	Six months
10 months	Seven months
11 months	Eight months
12 months	Eight months

Appendix B

Test cases

Test case	Liquidity test
IPO	
IPO/transfer to an eligible category main market listing (examples: from AIM or Equity Shares (transition) category)	From date of eligible category listing on main market Pass = index inclusion Fail = fail until June annual test
Fast entry	Not applicable Liquidity reviewed at the next June annual review
Nationality review	
<u>UK incorporated</u> : IPO/transfer to eligible category main market listing (examples: from AIM or Equity Shares (transition) category)	From date of eligible category listing on main market Pass = index inclusion Fail = fail until June annual test
<u>Non-UK incorporated</u> : IPO/transfer to eligible category main market listing (examples: from AIM or Equity Shares (transition) category)	From date of FTSE UK nationality allocation Pass = index inclusion Fail = fail until June annual test
Newly eligible	
Resumption of trading following suspension	At the next quarterly review, subject to there being a minimum 20-day trading record from the 12-month anniversary deletion date* to the index review cut-off date. Pass = index inclusion Fail = fail until June annual test *For illustration purposes, if a constituent was deleted on 21 December 2020, it would only be reconsidered for inclusion at the quarterly index review, which falls after 21 December 2021 (i.e. March 2022). Liquidity will be tested from 21 December 2021 until the review cut-off date (28 February 2022, as March has less than five trading days). Please note that any period of trading prior to 21 December 2021 will not be included in the liquidity test.
Industry Classification Benchmark (ICB) change from ineligible to eligible classification	At the next quarterly review, subject to there being a minimum 20-day trading record from the date of the ICB classification update in the monitored list to the index review cut-off date**. Pass = index inclusion Fail = fail until June annual test
Investability weight change from ineligible to eligible criteria (where not in relation to nationality review – see above)	At the next quarterly review, subject to there being a minimum 20-day trading record from the date of the investability weight update in the monitored list to the index review cut-off date**. Pass = index inclusion Fail = fail until June annual test **For illustration purposes, if a constituent's investability weight or ICB was updated effective 21 December 2021, it would only be considered eligible for inclusion at the quarterly index review, which falls after 21 December 2021 (i.e. March 2022). Liquidity will be tested from 21 December 2021 until the review cut-off date (28 February 2022, as March has less than five trading days).

Test case	Liquidity test
Corporate events	
Merger	Not applicable Liquidity reviewed at the next June annual review***.
Demerger	Not applicable Liquidity reviewed at the next June annual review***.
***Volume data prior to the corporate event effective date will be disregarded for the purposes of the June annual liquidity test.	

Appendix C

Further information

A Glossary of Terms used in FTSE's ground rule documents can be found using the following link:

[Glossary.pdf](#)

Further information on the FTSE UK Index Series is available from FTSE Russell.

For contact details, please visit the FTSE Russell website or e-mail FTSE Russell client services at info@ftserussell.com.

Website: www.lseg.com/en/ftse-russell/

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