

FTSE/ATHEX Mid & Small Cap Factor Weight Index

v1.8

ftserussell.com July 2018





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Introduction

1.0 Introduction

- 1.1 This document sets out the methodology for the construction and management of the FTSE/ATHEX Mid & Small Cap Factor Weight Index, which is calculated by ATHEX.
- 1.2 The FTSE/ATHEX Mid & Small Cap Factor Weight Index represents the performance of the 20 stocks on the ATHEX Market with the largest composite value, growth and profitability score.
- 1.3 The FTSE/ATHEX Mid & Small Cap Factor Weight Index is calculated real time by ATHEX and disseminated every 30 seconds.
- 1.4 The FTSE/ATHEX Mid & Small Cap Factor Weight Index has a starting value of 1,000 points, as at 22 October 2012.

1.5 FTSE Russell

- FTSE Russell is a trading name of FTSE International Limited, Frank Russell Company, FTSE Global Debt Capital Markets Limited (and its subsidiaries FTSE Global Debt Capital Markets Inc. and MTSNext Limited), Mergent, Inc., FTSE Fixed Income LLC and The Yield Book Inc.
- 1.6 The Benchmark Administrator considers that the benchmark would be appropriate for use for research, performance benchmarking or financial products. This list is non-exhaustive and users of the benchmark may have alternative purposes in mind.
- 1.7 The Benchmark Administrator hereby notifies users of the index that it is possible that circumstances, including external events beyond the control of The Benchmark Administrator, may necessitate changes to, or the cessation, of the index and therefore, any financial contracts or other financial instruments that reference the index should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the index.
- 1.8 Index users who choose to follow this index or to buy products that claim to follow this index should assess the merits of the index's rules-based methodology and take independent investment advice before investing their own or client funds. No liability whether as a result of negligence or otherwise is accepted by FTSE Russell or the Benchmark Administrator (or any person concerned with the preparation or publication of these Ground Rules) for any losses, damages, claims and expenses suffered by any person as a result of:

- any reliance on these Ground Rules, and/or
- any errors or inaccuracies in these Ground Rules, and/or
- any non-application or misapplication of the policies or procedures described in these Ground Rules, and/or
- any errors or inaccuracies in the compilation of the Index or any constituent data.





Management Responsibilities

2.0 Management Responsibilities

There are three groups involved in the management of the indexes:

- A. FTSE Athex Index Series Advisory Committee
- B. FTSE International Limited (FTSE)
- C. Athens Exchange (ATHEX)

2.1 Athens Exchange (ATHEX)

- 2.1.1 The Athens Exchange is the Benchmark Administrator and is responsible for the daily operation of the index.
- 2.1.2 ATHEX monitors all corporate actions and price changes and implements all constituent and weighting changes to the indices.
- 2.2 FTSE International Limited (FTSE)
- 2.2.1 FTSE is the Auditor to the indices.
- 2.2.2 FTSE is responsible for monitoring changes to the indices, auditing its operation and advising the ATHEX on the treatment of complex corporate actions.
- 2.2.3 FTSE will present an audit report to the Advisory Committee twice per year. The Committee may recommend changes to the operation of the indices following consideration of the audit report.
- 2.3 FTSE Athex Index Series Advisory Committee (the Advisory Committee)
- 2.3.1 The Advisory Committee has been established by FTSE Russell and the Athens Exchange to:
 - Discuss proposed changes to the Ground Rules of the FTSE Athex Index Series; and
 - Comment on the index reviews presented by the Athens Stock Exchange for the FTSE Athex Index Series
- 2.3.2 The Terms of Reference of the FTSE Athex Index Series Advisory Committee are set out on the FTSE Russell website and can be accessed using the following link:
 - FTSE Athex Index Series Advisory Committee.pdf

2.4 Amendments to these Ground Rules

- 2.4.1 These Ground Rules shall be subject to regular review (at least once a year) by the Benchmark Administrator and FTSE Russell to ensure that they continue to meet the current and future requirements of investors and other index users. The review process will include consultation on any proposed changes with the FTSE ATHEX Index Series Advisory Committee, the FTSE Russell Product Governance Board and approval by Listings and Market Operation Committee of the Athens Stock Exchange.
- 2.4.2 Changes to these Ground Rules can be authorised only by the Benchmark Administrator and FTSE Russell. In the event that an amendment is made to any of the Ground Rules, FTSE Russell shall advise the market of its decision at the earliest opportunity. Any such treatment will not be considered as an exception or change to the Ground Rules, or to set a precedent for future action, but FTSE Russell together with the FTSE/ATHEX Index Series Advisory Committee will consider whether the Ground Rules should subsequently be updated to provide greater clarity.





Eligible Securities

3.0 Eligible Securities

- 3.1 The FTSE/ATHEX Mid & Small Cap Factor Weight Index
- 3.1.1 All classes of ordinary shares in issue are eligible for inclusion in the index subject to conforming to Sections 3 and 4.
- 3.1.2 Convertible preference shares and loan stocks are ineligible.
- 3.1.3 Companies classified into Supersector codes 8300 (Banks), 8500 (Insurance) and 8600 (Real Estate) of the Industry Classification Benchmark (ICB) will be excluded from the index.
- 3.1.4 Exchange Traded Funds (ETF's) and funds whose prices are a direct derivation of underlying holdings will be excluded.
- 3.1.5 The universe of eligible constituents is stocks listed on Athens Exchange that are trading in the «Main Market» and «Low Dispersion» segment of ATHEX. On final selection process the stocks trading into «Low Dispersion» segment will be excluded from inclusion in the index.
- 3.1.6 The Benchmark Administrator must be satisfied that an accurate and reliable price is available for the purposes of determining the market value of a company.
- 3.1.7 Those stocks that are traded by Call Auction or are transferred to Call Auction trading are not eligible for inclusion in either index.
- 3.1.8 Stocks must be traded on a continuous basis throughout the full ATHEX trading day.
- 3.1.9 The index will consist of 20 stocks with the largest company final ranking value.





Investability Screens

4.0 Investability Screens

Eligible securities are subject to investability screens:

4.1 Free float

Shares in issue must, in the opinion of the Benchmark Administrator, be publicly available for investment. The Benchmark Administrator will adjust share weightings where cross-holdings exist or where free float is restricted.

4.1.1 Restricted free float includes:

- Shares directly owned by State, Regional, Municipal and Local governments (excluding shares held by independently managed pension schemes for governments).
- Shares held by directors, senior executives and managers of the company, and by their family and direct relations, and by companies with which they are affiliated.
- Shares held within employee share plans.
- Shares held by public companies or by non-listed subsidiaries of public companies.
- All shares where the holder is subject to a lock-in clause (for the duration of that clause)¹.
- Shares held by an investor, investment company or an investment fund for strategic reasons as
 evidenced by specific statements to that effect in publicly available announcements, has an
 employee on the board of directors of a company, has a shareholder agreement, has
 successfully placed a current member to the board of directors or has nominated a current
 member to the board of directors alongside a shareholder agreement with the company.
- Shares that are subject to on-going contractual agreements (such as swaps) where they would ordinarily be treated as restricted.

4.1.2 Free float restrictions where holding is 10% or greater

- Shares that are held by Sovereign Wealth Funds.
- Shares held by founders, promoters, former directors, venture capital and private equity firms, private companies, individuals (including employees) and shares held by several holders acting in concert.

¹ Free Float changes resulting from the expiry of a lock-in will be implemented at the next quarterly review subsequent to there being a minimum of 20 business days between the lock-in expiry date and the index review date.

The shares will remain restricted until the holding falls below 10%

4.1.3 Free float restrictions where holding is 30% or greater

For clarity, portfolio holdings (such as pension fund, insurance fund or investment companies) are generally not considered as restricted. However where a single portfolio holding is 30% or greater it will be regarded as strategic and therefore restricted. The shares will remain restricted until the holding falls below 30%.

If in addition to the above restricted holdings, the company's shareholders are subject to legal restrictions, including foreign ownership restrictions, that are more restrictive, the legal restriction will be applied.

4.1.4 Nominee Accounts:

Shares disclosed as being held by a nominee account are typically regarded as free float. However if a restricted shareholder (as defined under sections 1-3) is identified as holding shares through a nominee account then that portion of shares will be restricted.

- 4.1.5 If in addition to the above restricted holdings, the company's shareholders are subject to legal restrictions, including foreign ownership restrictions, that are more restrictive, the legal restriction will be applied.
- 4.1.6 Free float restrictions will be will be calculated using available published information. For Equity Shares of companies which have been admitted to the Index that have a free float greater than 15%, the actual free float will be rounded up to the next highest whole percentage number. Companies with a free float of 15% or below are not eligible for inclusion in the Index.
- 4.1.7 A constituent's free float will also be reviewed and adjusted if necessary following a corporate event. If the corporate event includes a corporate action which affects the index, any change in free float will be implemented at the same time as the corporate action. If there is not a corporate action, the change in free float will be applied as soon as practicable after the corporate event.
- 4.1.8 Following the application of an initial free float restriction, a constituent's free float will only be changed if its rounded free float moves to more than 3 percentage points above or below the existing rounded free float. Where a company's actual free float moves to above 99%, it will not be subject to the 3 percentage points threshold and will be rounded to 100%.





Periodic Review of Constituents

5.0 Periodic Review of Constituents

- 5.1 The FTSE/ATHEX Mid & Small Cap Factor Weight Index will be reviewed annually every May based on the annual financial statements of the ATHEX listed companies. The constituent reviews will be based on data collected as at the end of April. Market capitalistion will be calculated on the last trading date of April.
- 5.2 Changes arising from the annual review will be implemented after the close of business on the third Friday of June², in line with the implementation of the review of the FTSE/ATHEX Index Series.
- 5.3 The review of the FTSE/ATHEX Mid & Small Cap Factor Weight Index and the calculation of the final raking value of a company are carried out as follows, using the following ratios as calculated by the company's annual financial statements:

A. Profitability ratios

- Net Margin = Net Income t / Sales t
- Return on Equity (ROE) = Net Income t / [(Book Value t + Book Value t-1) / 2]
- Return on Assets (ROA) = EBIT t / [(Total Assets t + Total Assets t-1) / 2]

B. Value ratios

- Book Value to Price (BPR) = Book Value t / Full Mkt Cap t
- Dividend Yield (DY) = Total Dividends t / Full Mkt Cap t
- Cash Flow Yield (CFY) = Cash Flow t / Full Mkt Cap t

C. Growth ratios

- Sales Growth
- Earnings (Net Income) Growth

D. Debt ratios

Debt Ratio (DB) = (Debt t – Cash & Cash Equivalents t) / EBITDA t

² Periodic reviews were previously implemented on the last trading Friday of May. The change to the close of business on the third Friday of June is effective from the annual index review in May 2017.

5.4	Financial data that is not yet available and/or cannot be derived from pre-existing companies, for example, companies such as recent listings, or recently merged companies or investment entities that do not report the necessary fundamental values will be ineligible for inclusion in the index.

5.5 Review process

- A. For the eligible universe calculate for each company:
 - Profitability ratios for the last three fiscal year financial statements. The final value of each ratio is the average of the 3 year ratios.
 - Value ratios for the last fiscal year financial statement.
 - Growth ratios for the last three fiscal year financial statements. The final value of each ratio is the average of the 3 year ratios.
 - Dept ratio for the last fiscal year financial statement.
- B. For every company normalise each ratio within the industry that the company is classified in order to give comparable scale to each ratio, using the cross-sectional mean and standard deviation respectively of stocks in industry from the eligible universe at each rebalance point.

For example the normalised Net Margin of stock i: Norm Net Margin(i) = [Net Margin(i) – Mean Net Margin(j)]/Std Dev Net Margin(j)

C. Combining factors

Aggregate the normalised Profitability, Value and Growth ratios by summing the normalised individual stock Profitability, Value and Growth ratios for each stock. E.g. Normalised Profitability (i) = Norm Net Margin(i)+Norm ROE(i) + Norm ROA(i)

D. Final score

Sum the aggregate normalised Profitability, Value and Growth factors to obtain company's final score excluding companies with negative value to all three factors

- E. Rank all companies based on their final score excluding from the rank:
 - Companies with negative EBITDA
 - Companies in the top 25% of the eligible universe by their Debt Ratio
 - Companies that are constituents of the FTSE/ATHEX Large Cap and FTSE/ATHEX Mid Cap Indices
- F. Select the top 20 companies of the rank. Non-constituents of the FTSE/ATHEX Mid & Small Cap Factor Weight Index that have reached position 15 or above will qualify for entry into the index. Existing constituents which have fallen to position 26 or below will be removed from the index at the annual review.

5.6 Capping dates

5.6.1 The constituents of FTSE/ATHEX Mid & Small Cap Factor Weight Index are capped semi-annually at the close of business on the third Friday of June and December. The capping is implemented using prices adjusted for corporate actions as at the close of business on the second Friday of June and December based on the constituents, shares in issue and free float.

5.7 Capping Methodology

5.7.1 **Step 1**

No individual company in the Index can be greater than 20%. A company with a weight greater than 20% is capped at 20% capping weight.³

Step 2

Reweight and re-rank all companies by resulting weights largest to smallest. Find the highest ranked company by accumulated weight that is greater than 48%. This company and the companies ranked before it form the top capping group.

If the lowest ranked company in the top capping group is less than 5%, no further capping is needed. Otherwise proportionately cap the uncapped companies in the top capping group such that top capping group has an aggregate weight of 48% in the index.⁴

If the result of this round of capping causes any issues in the top capping group to fall below 4.75%, the weights of those companies will be capped at 4.75%.

Step 3

If the individual weights of the remaining lower ranking uncapped companies are greater than 4.75%, they will be capped at 4.75%.

5.8 Reserve lists

5.8.1 ATHEX will be responsible for publishing the five highest ranking eligible non-constituents of the FTSE/ATHEX Mid & Small Cap Factor Weight Index. The Reserve List will be used in the event that one or more constituents is deleted from an index during the period up to (but not including) the next annual review.

³ In the case more than two companies require 20% capping, then the top capping weight will be revaluated.

⁴ Companies capped at 20% will not be capped further.





Changes to Constituent Companies

6.0 Changes to Constituent Companies

6.1 Removal and replacement

- 6.1.1 If a constituent is delisted, or ceases to have a firm quotation, or is subject to a takeover offer which has been unconditionally accepted or has ceased to be a viable constituent as defined by the Ground Rules, it will be removed from the list of constituents and replaced by the highest ranking eligible security from the FTSE/ATHEX Mid & Small Cap Factor Weight Index Reserve List as at the close of business two days prior to the effective date of the deletion.
- 6.1.2 The removal and replacement are effected simultaneously, before the start of business on the day following the day on which the event justifying removal was announced. Announcements after close of business are normally deemed to be made on the following business day. In the case of a takeover, the qualifying event is an announcement that the offer has been unconditionally accepted.
- 6.1.3 If, between the announcement of the review and the implementation of the review, a vacancy in the index occurs, it will be replaced by the highest-ranking eligible non-constituent from the new reserve list. If the company to be removed is one previously announced as a forthcoming removal due to the index review, it will normally be replaced by the highest-ranking company (at the review date) previously announced as an addition at the index review.

6.2 Mergers, restructuring and complex takeovers

- 6.2.1 If the effect of a merger or takeover is that one constituent is absorbed by another constituent within the same index, the resulting company will remain a constituent of the index, and a vacancy will be created. This vacancy will be filled by selecting the highest ranking eligible non-constituent security from the Reserve List as at the close of business two days prior to the replacement being required.
- 6.2.2 If the effect of a merger or takeover is that a constituent of one of the indices is absorbed by a constituent of a lower index, the resulting company is eligible for inclusion as the replacement company in the higher index. The replacement constituent is the highest ranking eligible security from the Reserve List as at the close of business two days prior to the replacement being required. If the effect of a merger or takeover is that a constituent of an index is absorbed by a constituent of a higher index, the newly formed entity remains a constituent of the higher Index and the vacancy in the lower Index is filled by the highest ranking eligible non-constituent security from the Reserve List.
- 6.2.3 If a constituent company is taken over by a non-constituent company, the original constituent will be removed and replaced by the highest ranking eligible non-constituent security from the Reserve List as at the close of business two days prior to the replacement being required. Any eligible company

- resulting from the takeover will be eligible to become the replacement company, in either index, if it is ranked higher than any other non-constituent.
- 6.2.4 The Benchmark Administrator may, at its discretion, defer the inclusion at a review of a new issue until the next review, or to any other time as it may determine, if it has reason to believe that the security may not meet the selection criteria set out in Sections 4 and 5.

6.3 Suspension of dealing

- 6.3.1 If a constituent is suspended on its home exchange it may remain in the indices, at the price at which it is suspended, for up to 10 business days. During this time FTSE/ATHEX may delete the constituent immediately at zero value in cases where it is expected that the constituent will not recommence trading.
- 6.3.2 Where a suspension of a constituent lasts beyond noon on the tenth business day (and the option to remove the constituent has not been exercised), the constituent will normally be deleted from the indices on the eleventh trading day at zero value. Where suspension is for a reason not to the detriment of the constituent and its suspension is expected to be short-term, it may be retained at its suspension price.
- 6.3.3 If the suspended company is deleted from the indices, it will be replaced with the highest ranking company on the Reserve List eligible to be included in the indices as at the close of the index calculation on the day preceding the inclusion of the replacement company. This change will be effected after the close of the index calculation and prior to the start of the index calculation on the following day.

6.4 Relisting of suspended constituents

- 6.4.1 Securities which on relisting after a period of suspension of less than 3 months are larger than the smallest constituent of the index will be reinstated at the price at which they were removed until the next periodic review of constituents.
- 6.4.2 If a company relists after a continuous period of suspension lasting more than 3 months, the company will be treated as a new issue for the purposes of index eligibility.





Changes to Constituent Weightings

7.0 Changes to Constituent Weightings

- 7.1 For the purposes of computing the FTSE/ATHEX Indices, the number of shares in issue for each constituent security is expressed to the nearest share.
- 7.2 If a constituent's corporate action requires a price and/or shares in issue adjustment according to the current ATHEX regulations, the change in the number of shares in issue will be applied simultaneously with the corporate action.
- 7.3 Any exceptions to the above arrangements will be notified to all users in advance of implementation.
- 7.4 All adjustments are made before the start of the index calculation on the day concerned, unless market conditions prevent this.





Appendix A: Indices Algorithm and Calculation Method

Prices

The indices will use last trade prices for securities.

Calculation frequency

The indices will be calculated every 30 seconds during the opening hours of the Athens Exchange using real time prices.

Calculation of the Indices

The indices will be displayed to two decimal places.

The indices are calculated using the following formula:

$$\sum_{i=1}^{N} \frac{\left(p_i \times s_i \times f_i \times c_i\right)}{d}$$

Where,

- *i*=1,2,...,N
- N is the number of securities in the index.
- p_i is the latest trade price of the component security (or the price at the close of the index on the previous day).
- s_i is the number of shares in issue used by FTSE for the security, as defined in these Ground Rules.
- c_i is the Capping Factor to be applied to a security to correctly weight that security in the index. This factor maps the investable market capitalisation of each stock to a notional market capitalisation for inclusion in the index. This factor is published by FTSE for each security in the Index.
- f_i is the Free Float Band to be applied to each security, where 100 represents a 100% free float. This factor is published by FTSE for each security in the underlying index.
- d is the divisor, a figure that represents the total issued share capital of the index at the base date.
 The divisor can be adjusted to allow changes in the issued share capital of individual securities to be made without distorting the index.





Appendix B: Index Opening and Closing Hours

Index Open Close 15:20

FTSE/ATHEX Mid & Small Cap Factor Weight Index 08:30

Timings are UK hours.





Appendix C: Publication of Information

FTSE and the Athens Exchange shall ensure that the following information on the indices is widely published:

- A. Ground Rules
- B. Index values
- C. List of constituents
- D. Changes to constituents
- E. Changes and amendments to the Ground Rules
- F. Details of any recalculations or calculation amendments

Constituent prices, weightings and other stock data together with statistics on the indices are available on subscription from FTSE and the Athens Exchange.





Appendix D: Further Information

A Glossary of Terms used in FTSE Russell's Ground Rule documents can be found using the following link:

Glossary.pdf

For further information on the FTSE/ATHEX Mid & Small Cap Factor Weight Index, please contact FTSE Russell or ATHEX. Contact details can also be found on:

Website FTSE: www.ftserussell.com
Website ATHEX: www.Athexgroup.gr

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