

KPOP Index

Calculated by Morningstar Indexes Ltd.

Methodology Document

Version 1.5

Change History

Version Number	Editor	Date	Comments
1.0	Gareth Parker	23/06/2022	Live document.
1.1	Gareth Parker	16/08/2022	Clarification of weighting methodology.
1.2	Gareth Parker	30/08/2022	Clarification of review dates.
1.3	Andrea Masnata	20/06/2023	Inclusion of the Morningstar Indexes Services Methodology & Administration Committee. Minor content and stylistic changes. ESG disclosure.
1.4	Andrea Masnata	13/12/2023	Clarifying that CT Investments is the administrator of the index. Correcting Morningstar Committees' names and acronyms.
1.5	Gareth Parker	06/02/2024	Change of administrator, to Jakota Index Portfolios, and adjustments to index committee membership arrangements.

Distribution

Name	Firm/Department	Location
Public		

CONTENTS

1. Introduction.....	4
2. Governance	5
3. Index construction.....	7
4. Quarterly review of the KPOP Index.....	10
5. Calculation of the KPOP Index	11
6. Exceptions and amendments to these rules	12
7. Data publication	13
8. Contact details	14
9. Legal.....	15
Appendix A: Index Information.....	16
Appendix B: ESG Disclosure.....	17

1. Introduction

1.1. The KPOP Index

- 1.1.1. The KPOP Index is a 30-stock equity index that provides focused exposure to KRX-listed companies that are engaged in the entertainment and interactive media & services industries.
- 1.1.2. Constituents are weighted by free float-adjusted market capitalisation at each periodic review, subject to a 9.85% individual stock cap, with weights allowed to fluctuate between reviews.

2. Governance

2.1. Jakota Index Portfolios

2.1.1. Jakota Index Portfolios (“Jakota”) is the index provider, administrator and owner of the KPOP Index.

2.2. Jakota Index Committee

2.2.1. The Jakota Index Committee is responsible for the management of this methodology, for their continuing fitness for purpose, and therefore for any periodic amendments thereto. It is also responsible, in the event of the rules not providing a clear process for the management of any situation, for determining the process to be followed.

2.2.2. The committee is composed of a chairperson appointed by Jakota, and at least one additional member, either from Jakota or external index experts. The committee is quorate only when at least two members are present, but if not quorate, a member that cannot attend can name a suitable temporary substitute member. Jakota provides secretarial and other support that the committee requires.

2.2.3. The Jakota Index Committee convenes on at least an annual basis.

2.2.4. Full details of its responsibilities are detailed within the Committee’s terms of reference.

2.3. Morningstar Indexes Limited

2.3.1. Morningstar Indexes Limited (“Morningstar Indexes”) is the calculator of the index. Morningstar Indexes is regulated by the Financial Conduct Authority as a registered benchmark administrator under the UK Benchmarks Regulation and by BaFin as a registered benchmark administrator under the EU Benchmarks Regulation.

2.4. Morningstar Indexes Services Methodology & Administration Committee

2.3.1. The Morningstar Indexes Services Methodology & Administration Committee (hereinafter, also referred to as “ISMA”) supervises Morningstar Indexes Limited’s Index services calculation activities.

2.3.2. The ISMA is composed of at least six voting members (including the chair) each of whom must be employed in the index team and have significant experience in index governance, regulations, research, methodology or calculations.

2.3.3. The ISMA will meet at least monthly in person or by telephone.

2.5. Morningstar Indexes Operations Committee

2.5.1. The Morningstar Indexes Operations Committee (hereinafter, also referred to as “OPS-Com”) governs the processes, systems and exception handling of the day-to-day management of the index, including the implementation of index rebalancings and reconstitutions, restatements and contingency management. The committee oversees the implementation of the periodic review.

2.5.2. The committee will consist of at least six voting members (including the chair) each of whom must be employed in the index team and have significant experience in index operations, methodology or calculations.

2.5.3. The OPS-Com will meet at least monthly in person or by telephone.

2.6. Index Methodology Changes

- 2.6.1. Members of the Jakota Index Committee, Morningstar Indexes Services Methodology & Administration Committee, and stakeholders may at any time recommend changes to these Rules (including the Index construction criteria) by submitting any proposed changes for consideration and approval in advance of the Jakota Index Committee's next meeting.
- 2.6.2. Proposed rules changes that the Jakota Index Committee deems material will be publicly consulted on, according to the policy detailed within the Morningstar Indexes Methodology Change Policy and Morningstar Indexes Cessation Process, available from <https://indexes.morningstar.com>.
- 2.6.3. Following approval by the Jakota Index Committee, such changes shall be implemented by way of an update to these rules, which shall be published on <https://indexes.morningstar.com>.
- 2.6.4. Except in exceptional circumstances, new rules and rules adjustments will become effective after the following annual review of index constituents and weightings.

3. Index construction

3.1. Classification of potentially-eligible constituents

Theme eligibility

- 3.1.1. The index calculator, Morningstar Indexes, uses theme classification data provided by Jakota Index Portfolios to identify index constituents and weightings. The classification process is separate from the determination of index constituents and weightings.
- 3.1.2. Jakota Index Portfolios research staff identifies and classifies companies as being engaged in the KPOP Industry, and assigns each a “theme relevance score”.
- 3.1.3. The research staff are assisted by a proprietary artificial intelligence algorithm (taking advantage of Natural Language Processing (NLP) technologies) that extracts patterns from data. Only publicly-available information is used, and all output from the AI algorithm is manually reviewed as part of the classification and scoring process.
- 3.1.4. Research staff then classifies each constituent to one of two industries: Entertainment and Interactive Media & Services.
- 3.1.5. After identifying the initial investment universe, these companies are then reviewed to ensure they are consistent with the theme of the index.

3.2. Constituent Eligibility

- 3.2.1. Once the initial investment universe is established, the index calculator (Morningstar Indexes) applies the below size, liquidity and other eligibility rules in order to determine index constituents.

Geographic Eligibility

- 3.2.2. Companies must be traded on the Korea Exchange (KRX) in Korean Won (KRW).
- 3.2.3. Potential constituents who are not KRX-listed are removed from the eligible universe.

Size eligibility

- 3.2.4. Shares with a minimum full market capitalization of less than KRW100bn are removed from the eligible universe.¹

Free float

- 3.2.5. Shares with a free float of less than 10% are removed from the eligible universe.

3.3. Constituent Selection

- 3.3.1. Index constituents are selected and weighted according to the following process:
- 3.3.2. An initial universe of eligible index constituents is built according to the criteria defined above.
- 3.3.3. The index’ eligible universe is ranked in reverse order of float-adjusted market capitalisation.
- 3.3.4. The largest five securities by float-adjusted market capitalisation within the Entertainment Industry are selected for inclusion in the index. (If fewer securities are available, all available securities are selected.) These are “initial constituents” for this industry.

¹ Note, during index annual reviews, existing constituents whose capitalization remains above \$250m will remain eligible with respect to their market capitalization.

- 3.3.5. The largest two securities by float-adjusted market capitalisation within the Interactive Media & Services Industry are selected for inclusion in the index. (If fewer securities are available, all available securities are selected.) These are “initial constituents” for this industry.
- 3.3.6. The index’ eligible universe is then ranked in reverse order of theme relevance score.
- 3.3.7. The top three unselected securities by theme relevance score within the Entertainment Industry are selected for inclusion in the index. (If fewer securities are available, all available securities are selected.) These are also “initial constituents” for this industry.
- 3.3.8. The top unselected security by theme relevance score within the Interactive Media & Services Industry are selected for inclusion in the index. (If fewer securities are available, all available securities are selected.) These are also “initial constituents” for this industry.
- 3.3.9. The highest-ranked remaining unselected securities are selected for inclusion in the index, one by one in reverse order of theme relevance score, until the total number of selected constituents is 30.

3.4. Constituent Weighting

- 3.4.1. Constituents are weighted via convex optimisation, within the following constraints, to minimise the distance from float adjusted market cap-based weightings.

Sector-based weight controls

- 3.4.2. The following weight limits are applicable to the summed weights of the constituents of the relevant subsectors.

Industry	Weight at rebalance
Entertainment	Between 70% and 80%
Interactive Media & Services	Between 20% and 30%

Initial diversification-based weight controls

- 3.4.3. The largest five constituents’ float-adjusted weight in the overall index are capped at 9.85%.
- 3.4.4. Remaining constituents are capped at 4.85%.

Holdings-based weight controls²

- 3.4.5. Index weights are optimised to limit the likelihood of products that track the KPOP index breaching the mandatory reporting requirement for company holdings greater than 10%. In other words, the weight of constituents within the index should not lead to a situation where the largest fund tracking the index would itself hold more than 10% of any individual listed company, even if the fund continues to grow in size.
- 3.4.6. To achieve this, the index-based product with the largest AUM is identified, and its AUM at the index determination date (see section 4) is identified.

² For clarity, the reader should recognise that this section describes a control on the percentage that the largest index-based fund can hold in an individual constituent – it is separate from the weight that the constituent has within the index.

- 3.4.7. An optimisation process is then used, which minimises the sum of **{max (the largest fund's AUM, KRW 1,000,000 million) * constituent weight} / constituent full market-cap - 5%**, subject to the diversification constraints noted above in 3.4.3 and 3.4.4. This optimisation assumes that the index-based product is 100% invested. The holding size is assessed for each index constituent, by multiplying the AUM by each constituent's weight. The percentage that this holding size represents of the constituent's full market capitalisation is then calculated and the optimiser minimises the occurrence of any constituent's holding size exceeding 5% of the constituent's full market capitalisation.
- 3.4.8. Once the above process is completed, index weights are further reduced for constituents whose holding sizes are greater than 7%, until the holding size for each constituent is 7%, and the excess weight redistributed pro-rata across the remaining uncapped constituents.

Calculation of Cap Factor

- 3.4.9. A cap factor is calculated for each constituent, to achieve the final index weightings of each constituent.

4. Quarterly review of the KPOP Index

4.1. Timings

4.1.1. The KPOP Index is reviewed quarterly, using the process described below.

4.1.2. Dates applicable to reviews are detailed below:

Date	Name	
On the second last trading day of March, June, September and December	Determination date	Date on which data is collected for use in the index review. (Data is collected at the close of markets on this day.)
On the last trading day of March, June, September and December	Review release	Date on which the results of the review are published to licensees.
The fourth trading day of January, April, July and October	Implementation date	Date on which the results of the review are implemented in the index. (Changes are effective in the index at the index open on the fifth trading day of January, April, July and October.)

(Note a trading day is a day on which both the Korea Exchange (KRX) and KOSDAQ are open.)

4.1.3. Where KRX is closed on a determination, review release or implementation date, the previous trading day will be used instead of the indicated date.

4.2. Review process

4.2.1. As of the determination date, share prices, shares in issue, KPOP Index classifications, theme relevance scores and related data are captured.

4.2.2. The eligible universe is created, as described in 3.1 above.

4.2.3. Constituents are selected and weighted according to the process described in section 3 above.

4.2.4. The results of the quarterly review process are published on the review release date.

4.2.5. The results of the quarterly review process are implemented at the close of business on the implementation date.

5. Calculation of the KPOP Index

5.1. Index versions calculated

- 5.1.1. Price, net total return, and gross total return versions of each index are calculated.
- 5.1.2. The index is calculated in US dollars (USD).
- 5.1.3. The index is an end of day index, calculated on all trading days (days on which both KRX and KOSDAQ are open) using the closing auction price received from each constituent's primary listing exchange, converted (where necessary) using the WM/Refinitiv London 4pm closing spot values, and is published shortly after those values are received by Morningstar Indexes.

5.2. Index formula & divisor calculations

- 5.2.1. For details of the index calculation formula and related processes, please refer to the "Morningstar Index Services Equity Index Calculation Guide". The KPOP Index is treated as a market capitalization-weighted index.

5.3. Constituent exits between reviews

- 5.3.1. The handling of constituents who undergo takeover or mergers follows the policy detailed in the Morningstar Index Services Equity Index Calculation Guide.
- 5.3.2. Constituents removed due to takeovers or mergers, or for any other reason, are not replaced until the next index review.
- 5.3.3. Where a constituent is removed, the weight of the constituent is distributed pro-rata across the remaining constituents. If the company is removed at a zero value, due to bankruptcy etc, no redistribution of weight is necessary.

5.4. Other corporate actions and events

- 5.4.1. The constituents of the KPOP Index are proactively maintained to reflect changes that may result from corporate actions.
- 5.4.2. The management of corporate events follows the processes and procedures outlined in the Morningstar Indexes Corporate Actions Methodology.

5.5. Errors

- 5.5.1. If an error is discovered in an index value Morningstar Indexes will follow the process outlined in the "Morningstar Indexes Recalculation Guidelines", available at <https://indexes.morningstar.com>.

6. Exceptions and amendments to these rules

6.1. Exceptions

- 6.1.1. Morningstar Indexes shall apply the method described above for the composition and calculation of the indices. However, it cannot be excluded that the market environment, supervisory, legal, financial or tax reasons may require unforeseen changes to be made to the KPOP Index.
- 6.1.2. Wherever exceptions are required, Morningstar Indexes will endeavour to ensure a calculation method is applied that is consistent with the method described in this document.

6.2. Amendments

- 6.2.1. Morningstar Indexes Limited and Jakota Index Portfolios notify users of the benchmarks that whilst it is the policy of Jakota Index Portfolios as administrator to consult fully on any material change to a benchmark, it is possible that circumstances, particularly external events beyond the control of Morningstar Indexes and Jakota Index Portfolios may necessitate immediate changes to, or the cessation of, a benchmark and therefore, any financial contracts or other financial instruments that reference the benchmarks, or any market participants that use the benchmarks in valuations should plan to be able to manage the possibility of changes to, or cessation of, the benchmarks. Please consult the Morningstar Indexes Methodology Change Policy and Morningstar Indexes Cessation Process for further details.
- 6.2.2. Jakota Index Portfolios and the Morningstar Indexes Services Methodology & Administration Committee may prescribe changes to the selection criteria and other rules governing the indices and the method applied to calculate the indices, which it deems to be necessary and desirable in order to prevent material errors or to remedy, correct or supplement the rules currently described in these Guidelines.
- 6.2.3. Jakota Index Portfolios and Morningstar Indexes shall ensure that any amendments to the methodology are updated and published as soon as possible after any changes to the indices are implemented, and shall notify all persons who have licensed the use of the indices as far in advance of such implementation as reasonably practicable.

7. Data publication

7.1. Data distribution

- 7.1.1. The index values are published via various data vendors. Each vendor determines whether they will distribute/display the index data via their respective information systems. Values are also published at <https://indexes.morningstar.com>.
- 7.1.2. The composition of the index, as well as the respective weightings of index constituents, is published on a retrospective basis in respect of each review date on the trading day immediately following the next review date, at <https://indexes.morningstar.com>.

8. Contact details

- 8.1.1. The index provider, Jakota Index Portfolios, can be contacted at motoko@jakotaindex.com.
- 8.1.2. The index calculator, Morningstar Indexes Ltd, can be contacted at indexes@morningstar.com. More information is available at <https://indexes.morningstar.com>.

9. Legal

- 9.1.1. Jakota Index Portfolios or any successor thereto (the "Index Owner") owns solely and exclusively the intellectual property rights in the KPOP Index and its methodology (excluding methodological elements not developed specifically for the creation of the KPOP Index). Any use or publication of such intellectual property, as well as of the KPOP trademark or any other KPOP related methodologies, provisions or values, must be with the prior written consent of Jakota Index Portfolios.
- 9.1.2. Jakota Index Portfolios and Morningstar Indexes Ltd. assume no obligation, duty or liability to any person in relation to the Index save as provided in any written agreement with such person. Jakota Index Portfolios and Morningstar Indexes Ltd. make no express or implied warranty as to:
- a) the advisability of purchasing or assuming any risk in connection with any transaction related to the Index;
 - b) the levels at which the Index stands at any particular time on any particular date;
 - c) the results to be obtained by any party from the use of the Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction;
 - d) any other matter.
- 9.1.3. Jakota Index Portfolios may assign the proprietary rights in the Index to a third party in its reasonable discretion.

9.2. Licensing

- 9.2.1. Licenses to use the indices as the underlying value for investment products and derivative instruments may be issued to stock exchanges, banks, financial services providers and investment houses by Jakota Index Portfolios.

Appendix A: Index Information

Name	Ticker	Value	Inception Date
KPOP Index			

Appendix B: ESG Disclosure

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY³	
Item 1. Name of the benchmark administrator	Jakota Index Portfolios
Item 2. Type of benchmark or family of benchmarks	Equity
Item 3. Name of the benchmark or family of benchmarks	KPOP Index
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No
Date on which information has last been updated	06/02/2024
The reason why the information has been updated	Clarifying that Jakota Index Portfolios is the owner and administrator of the index.

³ The information herein contained is provided in accordance with the Commission Delegated Regulation (EU) 2020/1817 of 17 July 2020 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation on how environmental, social and governance factors are reflected in the benchmark methodology.

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers, and advisors in navigating investment opportunities across major asset classes, styles, and strategies. From traditional benchmarks and unique IP-driven indexes to index design, calculation, and distribution services, our solutions span an investment landscape as diverse as investors themselves.

Morningstar Indexes Methodology Committee

The Morningstar Indexes Methodology Committee oversees all new index development, index methodology changes, and cessation of indexes for any indexes where Morningstar owns the intellectual property. This committee is also charged with ensuring that indexes align with Morningstar Research principles and values. The group comprises members of the index team with index research, product development, product management, client service, index implementation, and operation expertise who provide the first layer of governance over index design and methodology.

Morningstar Indexes Services Methodology & Administration Committee

The purpose of the Morningstar Indexes Services Methodology & Administration Committee (the “ISMA”) is to oversee all new index development, index methodology changes, and cessation of indexes for any indexes where Morningstar provides calculation and administration services but does not own the Intellectual Property of the indexes. This committee will also oversee the adequacy and effectiveness of the operational interactions between Morningstar and its calculation services clients, and of client governing committees, where relevant.

Morningstar Indexes Operations Committee

The Morningstar Indexes Operations Committee (“OPS-Com”) governs the processes, systems, and exception handling of the day-to-day management of all live indexes, including index rebalancing and reconstitution, restatements, market classification, and contingency management. The committee oversees the annual review of index methodology (as required by the UK and EU BMRs), ensuring that methodologies remain fit for purpose and continue to achieve their stated investment objectives. The Index Operations Committee is responsible for governing the operations of both Morningstar branded indexes as well as indexes where Morningstar only provides calculation services.

Morningstar Indexes Oversight Committee

The Morningstar Indexes Oversight Committee is responsible for the index oversight function as per the requirements of the UK and EU BMRs, providing independent oversight of all aspects of the governance of benchmark administration as required by the relevant BMR. Its remit extends to all calculation and administration-related business activities of Morningstar Indexes, including administration of Morningstar-owned benchmarks as well as client-owned benchmarks and index calculation. The oversight function is part of the organizational structure of Morningstar but is separate and independent from the index business, index management, and the other index committees.

<https://indexes.morningstar.com>

Contact Us

indexes@morningstar.com

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