
**GROUND RULES FOR GENERATION OF NSE 20 SHARE
INDEX**

TABLE OF CONTENTS

SECTION 1	3
BACKGROUND	3
SECTION 2	4
METHODOLOGY USED TO GENERATE THE INDEX	4
SECTION 3	6
ELIGIBILITY CRITERIA.....	6
SECTION 4	7
PERIODIC REVIEW OF CONSTITUENT COMPANIES	7
SECTION 5	8
RESERVE LIST	8
SECTION 6	9
CHANGES TO CONSTITUENT COMPANIES.....	9
SECTION 7	10
NEW ISSUES	10
SECTION 8	11
SUSPENSION OF DEALING	11
SECTION 9	12
TREATMENT OF RELISTING COMPANIES	12
SECTION 10	13
CHANGES TO CONSTITUENT WEIGHTINGS.....	13
SECTION 11	14
AMENDMENTS TO THE GROUND RULES	14
SECTION 12	15
PUBLICATION OF INFORMATION	15
SECTION 13	16
CURRENT NSE 20 SHARE CONSTITUENT COMPANIES	16

SECTION 1

BACKGROUND

An index, in general terms, is a measure of relative change from one point in time to another.

It attempts to summarize in fairly simple terms changes that have occurred to a large number of items during the reference period. This manual outlines the procedures that guide the generation and management of the NSE 20 Share index which is a price weighed index. It tackles issues concerning stock eligibility criteria, index construction and maintenance methodology, determination of the index base date and dissemination of index results.

SECTION 2

METHODOLOGY USED TO GENERATE THE INDEX

As suggested above, the NSE 20 share index is an equal-weighted geometric mean of 20 large ordinary stocks traded on the Nairobi Securities Exchange. The formula is as follows:

$$(It) = (It) - (1) \sqrt[20]{\frac{P_{1t}}{P_{1t-1}} \times \frac{P_{2t}}{P_{2t-1}} \times \dots \times \frac{P_{20t}}{P_{20t-1}}}$$

$$= (It) - (1) \sqrt[20]{\prod_{j=1}^{20} \frac{P_{jt}}{P_{jt-1}}}$$

Where:

I_t = Index at time t

I_{t-1} = Index at time t-1

P_{jt} = Price of stock j (j=1,2...19,20) at time t.

P_{jt-1} = Price of stock j at time t-1

\prod = Multiplying operator (Product)

$\sqrt[20]$ = Operator for taking the 20th root of the value inside the bracket.

The procedure to be used is as follows:

1. After market close, tabulate the prices of all the stocks in the index.

(The ideal Price is the volume weighted average price of the day but if no trade occurred, then the last traded price is used.)

2. Tabulate alongside these, the previous day's prices computed in the same manner.
3. Multiply all the prices for the day. (Numerator).
4. Multiply all the prices for the day (Denominator).

(Do not round off the products in 4 and 5)

5. Divide the Numerator in 3 by the Denominator in 4 (Value).
6. Take the 20th root of the value computed in step 5.

(Do not round off).

7. Multiply the result in 6 by the Index computed for the previous day

(This will give the new index for the day)

8. Double check for correctness.

Note:

It is absolutely essential to avoid rounding off. This can be achieved by using a floating decimal calculator.

Even a small rounding off can cause a substantial error in the final index.

(If there has been no change in the price of a given stock from one day to the next, both prices can be ignored from the computation. But the 20th root must still be taken nevertheless).

SECTION 3

ELIGIBILITY CRITERIA

In order for a company to qualify for inclusion in the Index, the issuer shall fulfill the following conditions:

- Shares must have their primary listing on the Nairobi Securities Exchange.
- Must have a least 20% of its shares quoted on the NSE.
- Must have been continuously quoted for a least 1 year.
- Must have a minimum market capitalization of Kes.20 million.
- Should ideally be a “blue chip” company with a superior profitability and dividend record.

SECTION 4

PERIODIC REVIEW OF CONSTITUENT COMPANIES

The Trading Committee which is the Index Management Committee meets semi-annually to review the constituents of the index. The constituent reviews are based on data collected. Details of the outcome of the review will be published as soon as possible after the Index Management Committee meeting has concluded.

The periodic review of constituents will be conducted using the following steps:

1. Create a database of all securities listed on the Nairobi Securities Exchange;
2. Apply all liquidity tests set out in Ground Rules;
3. Weighting all the activity measures as set out in Ground Rules as follows;
Market capitalisation (40%), shares traded (30%) Number of Deals (20%)
Turnover (10%)
4. Exclude securities which do not fulfil criteria set out in Ground Rules;
5. Rank all eligible securities by market capitalisation, largest first and smallest last;
6. Existing constituents which have fallen to position 21 or below will qualify to be removed from the index at the periodic review;
7. Where a greater number of securities qualify to be included in the index than those qualifying to be removed, the lowest ranking securities presently included in the index will be removed to ensure that the number of securities remains constant. Likewise, where a greater number of securities qualify to be removed from the index than those qualifying for inclusion, the highest ranking securities which are presently not in the index will be included to match the number of securities being removed at the periodic review.
7. Adjust share weightings for availability to all investors.

SECTION 5

RESERVE LIST

- The Nairobi Securities Exchange is responsible for publishing the five highest ranking non-constituent securities of the NSE 20 share Index following each semi-annual review. This Reserve List will be used in the event that one or more constituent securities are deleted from the NSE 20 share Index, during the period up to the next semi-annual review of the Index.
- Where a security is removed from the Index after the Index management Committee has met and approved semi-annual changes to the Index but before the semi-annual changes have been implemented, the highest ranking security by full market capitalisation from the new Reserve List (excluding current Index constituents) will replace the deleted security.

SECTION 6

CHANGES TO CONSTITUENT COMPANIES

Removal and Replacement

- If a constituent is delisted, or ceases to have a firm quotation, or is subject to a takeover offer which has been declared wholly unconditional or has, in the opinion of the Index Management Committee, 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 reserve list security ranking highest by full market capitalisation as at close of business on the day preceding the inclusion of the replacement security.
- 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. Announcement 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 declared wholly unconditional.
- Mergers, Restructuring and Complex Takeovers
- If the effect of a merger or takeover is that one constituent is absorbed by another constituent 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 security from the reserve list as at close of business on the day preceding the inclusion on the replacement security.
- If a constituent company is taken over by a non-constituent company, the original constituent will be removed and replaced by the merged entity. In the event that the merged entity is ineligible for the NSE 20 share Index, it will be replaced by the highest ranking security from the reserve list as at close of business on the day preceding the removal of the original constituent.
- If a constituent company is split so as to form two or more companies, then the resulting companies will be eligible for inclusion as index constituents if their market capitalisation(s) are large enough to qualify, and if they qualify in all other respects. The lowest ranking constituent of the index is removed.

SECTION 7

NEW ISSUES

- If, in the view of the Index Management Committee, a new issue is so large that the effectiveness of the index as a market indicator would be significantly and adversely affected by its omission, the Advisory Committee may decide to include the new issue as a constituent of the index at the earliest practicable opportunity. In such a case, the timing of the inclusion of the new constituent will be at the discretion of the Index Management Committee. The security which is the lowest ranking constituent of the index in the sector where the new issue fits will be selected for removal.
- New issues of companies which do not qualify for early entry but which meet the criteria for eligible securities will be eligible for inclusion in the next review.
- If the Index Management Committee decides to include a new issue as a constituent security other than as part of the normal periodic review procedure, this decision must be publicly announced at the earliest practicable time.

SECTION 8

SUSPENSION OF DEALING

- Where a suspension of a constituent lasts for more than 30 calendar days and in the opinion of the Index Management Committee is unlikely to return to the market, it will be deleted from the index. When a stock is otherwise removed following suspension of its quote, the stock will be removed at its suspension price unless otherwise decided by the Committee.

SECTION 9

TREATMENT OF RELISTING COMPANIES

- Securities which were removed from the NSE 20 share index, which on relisting are larger than the smallest constituent of the index, shall be re-instated in the index at the price at which they were removed and the lowest ranking constituent of the index will be selected for removal. The addition and deletion of stocks occur simultaneously, such that there are always 20 constituent companies.
- Securities which on relisting are smaller than the smallest constituent of the index, shall then be re-instated in the same index at the price at which they were removed after the close of the index calculation on the trading day prior to relisting.

SECTION 10

CHANGES TO CONSTITUENT WEIGHTINGS

- Adjustments to reflect a major change in the amount or structure of a constituent company's issued capital must be made before the start of business on the day on which the change takes effect (e.g. the Ex-Date for a rights or capitalisation issue).
- Adjustments to reflect less significant changes (e.g. the issue of an additional block of shares under an employees' equity scheme) would be implemented as soon as possible following the announcement of the change.

SECTION 11

AMENDMENTS TO THE GROUND RULES

- Changes and exceptions to these Ground Rules can be authorised only by the Index Management Committee. In the event that the Committee or any of those responsible for the operation and administration of the index consider that an exception should be made to any of the Ground Rules, the issue must be brought to the attention of the Chairman (or their representatives), who will normally put the matter to the Index Management Committee for a decision.

SECTION 12

PUBLICATION OF INFORMATION

The Nairobi Securities Exchange shall ensure that the following information on the indices is widely published:

- i). Index values
- ii). List of constituents
- iii). Changes to constituents
- iv). Changes and amendments to the Ground Rules
- v). Details of any recalculations or calculation amendments.

Constituent prices, weightings and other stock data together with statistics on the indices are available from the NSE Website. The daily index points will be published on the Daily Equity Pricelist and the NSE Website before the close of business.

SECTION 13

CURRENT NSE 20 SHARE CONSTITUENT COMPANIES

Constituents
Britam Holdings Plc Ord 0.10
Nairobi Securities Exchange Plc Ord 4.00
Barclays Bank of Kenya Ltd Ord 0.50
Equity Group Holdings Plc Ord 0.50
KCB Group Plc Ord 1.00
Diamond Trust Bank Kenya Ltd Ord 4.00
The Co-operative Bank of Kenya Ltd Ord 1.00
Kenya Re Insurance Corporation Ltd Ord 2.50
Nation Media Group Plc Ord. 2.50
WPP Scangroup Plc Ord 1.00
Centum Investment Co Plc Ord 0.50
Standard Chartered Bank Kenya Ltd Ord 5.00
Bamburi Cement Ltd Ord 5.00
KenGen Co. Plc Ord. 2.50
KenolKobil Ltd Ord 0.05
Kenya Power & Lighting Co Ltd Ord 2.50
British American Tobacco Kenya Plc Ord 10.00
East African Breweries Ltd Ord 2.00
NIC Group Plc Ord 5.00
Safaricom Plc Ord 0.05