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## AMNEX Ground Rules

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London, November 2007

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## 1. Introduction

This paper sets out the Ground Rules for the Management of the **AMNEX** Indices. Copies of the Ground Rules are available from Anglo Broker JSC.

The **AMNEX** provide a comprehensive and complementary set of indices which measure the performance of the major segments of Montenegrin capital market. The **AMNEX** Series includes the following indices:

**AMNEX 20**  
**AMNEX IF**  
**AMNEX All**

## 2. Statement of Principles

The guiding principles behind the calculation methods of **AMNEX** indices are as follows:

(a) the indices and index statistics are produced primarily for use in analysing investment strategies and as a measure of portfolio performance for both individual and professional investors such as investment and pension funds, insurance companies and other institutional investors;

(b) all calculations do not consider declared dividends;

(c) the calculation methods should reflect reality wherever practical;

(d) the indices should be capable of being replicated by users. The calculation methods should not, therefore, be over-complex or use data not readily available in public domain;

(e) only historic data should be used in calculating the index statistics;

(f) data used in the indices should originate from an authoritative source. Wherever possible, data published in audited accounts and other public statements from companies (including interim statements) will be used with minimal amendment;

(g) continuity with the past should be retained wherever possible;

(h) consistency of calculation methods and data should be maintained wherever practical;

(i) market practitioners from among both investors and brokers should be actively involved in determining 'best practice' to be used in the calculation of the indices and in ensuring that the indices continue to meet current market needs;

(j) The views of other market participants should be represented on our practitioner committees. Our decisions should be consensus driven wherever possible;

(k) Decisions should be taken independent of any single interest group. The interests of investors, analysts and constituent companies will be balanced in managing the indices;

(i) The indices should be transparent and predictable;

(m) In applying stock events the position of the underlying portfolio should be accurately reflected whenever possible;

(n) Occam's razor. Wherever possible the simple and practical approach should be preferred.

(o) The primary purpose of the indices is to reflect movements in the underlying market accurately.

### 3. Management Responsibilities

#### 3.1 AMNEX Committee Membership

Members of the **AMNEX** Indices Committee are selected and deselected by Anglo Broker's JSC Board of Directors and should strive to represent all relevant institution of Montenegro's Capital Market. The Committee is authorized for application of the **AMNEX** Ground Rules. Board of Directors of Anglo Broker JSC also appoints a Chairman, Deputy Chairman and the Secretary of the **AMNEX** Committee. The relevant chairman, or in his absence Deputy Chairman, will chair meetings of the respective committee and will represent that committee outside meetings. The Chairman and Deputy Chairman of the **AMNEX** are collectively responsible for approving constituent changes to the **AMNEX** Indices between meetings of the Committee on advice from the Secretary to the Committee and as permitted and specified by these Ground Rules. Two nominated deputies are appointed from the Committee to deputise for the Chairman and Deputy Chairman in their absence or when additional viewpoints are required by the Chairman and Deputy Chairman.

The Secretary will maintain a record of constituent changes to the **AMNEX** Indices and will be responsible for the timely publication of all constituent changes. The Secretary will be responsible for conducting the periodic or extraordinary review of the **AMNEX** Indices and will recommend for the approval of the **AMNEX** Committee which companies, if any, should be inserted and deleted at the periodic review.

Other than the periodic review, the Secretary will seek the approval of the Chairman and Deputy Chairman of the **AMNEX** Committee before removing or inserting constituents to the **AMNEX** Indices. In the absence of either or both the Chairman and Deputy Chairman, the views of their nominated deputies shall be sought. The Chairman or Deputy Chairman (or their deputies) may request that a full meeting of the Committee be convened to consider a proposed change of constituent should any one of them consider it appropriate to do so. The Secretary will inform the **AMNEX** Committee of all constituent changes as soon as possible after the change has been approved and he/she will be responsible for the timely publication of changes of constituents.

**Warning:**

Given that primary data used for calculation of AMNEX Indices are generated by Montenegro and NEX Montenegro Stock Exchanges Anglo Broker JSC can not guarantee that the data, coefficients and methodology applied for calculation of indices are error free. Anglo Broker JSC will strive to calculate indices with due diligence but does not accept responsibility for any direct or indirect loss that may occur as a result of an error either in the data or calculation of the indices. Content of any index basket can not be considered as a recommendation for investment and therefore Anglo Broker JSC does not accept any responsibility for consequences of investment decisions made using AMNEX indices or its coefficients.

#### 4. Operation of the AMNEX Indices

Anglo Broker JSC is responsible for the operation of all the **AMNEX** Indices. Anglo Broker JSC will maintain records of the market capitalisation of all constituents and reserve companies and will make changes to the constituents and their weightings in accordance with the Ground Rules. Anglo Broker JSC may suggest reviews to the secretary of **AMNEX** Committee and implement the resulting constituent changes as required by the Ground Rules. Anglo Broker JSC will report to the **AMNEX** Committee on issues arising from the index calculation and administration process.

#### 5. Status of Indices

The **AMNEX** Share Indices which are calculated in real time but may be reported with a delay up to five minutes may exist in the following states:

a) *Intraday*

The indices are being calculated during Official Market Hours on actual trades from both, Montenegro and Nex Montenegro Stock Exchanges. No message will be displayed against the index value.

b) *Closed*

The indices have ceased all calculations for the day. The message '**CLOSE**' will be displayed against the index value calculated by Anglo Broker JSC.

c) *Held*

During Official Market Hours, an index has exceeded pre-set operating parameters and the calculation has been suspended pending resolution of the problem. The message '**HELD**' will be displayed against the last index value calculated by Anglo Broker JSC.

d) *Indicative*

If there is a system problem or situation in the market that is judged to affect the quality of the constituent prices at any time when an index is being calculated, the index will be declared indicative (e.g. normally where a 'fast market' exists in the equity market). The message '**IND**' will be displayed against the index value calculated by Anglo Broker JSC.

The official opening and closing hours of the **AMNEX** Share Indices are set out in Appendix A. Variations to the official hours of the indices will be published by Anglo Broker JSC.

## 6. Indices Calculation Method

### 6.1 Eligible Securities

The **AMNEX** Montenegro's share Indices are arithmetic weighted index where the weights are the market capitalisation of each index constituent. The price index is the summation of the market values (or capitalisations) of all companies within the index listed on either Montenegro or NEX Montenegro Stock Exchanges or both. Each constituent is weighted by its market value (shares-in-issue multiplied by share price multiplied by investibility weighting, which is usually 1.00). The price movement of a larger constituent will, therefore, have a larger effect on the indices than a smaller constituent. Values of **AMNEX** indices are calculated in the real time based on average prices of constituent elements of the index during the day. However, indices values may be reported with a slight delay (up to five minutes) in order to protect commercial interests of the exchanges.

The formula used for calculating the indices is straightforward. However, determining the capitalisation of each constituent and calculating the capitalisation adjustments to the indices are more complex. An index value itself is simply a number which represents the total market value of all constituents within the index at a particular point in time compared to a comparable calculation at a starting point.

During calculation of index value at any moment, the relevant quantity of shares of certain issuer, which is used in calculation, includes total number of ordinary shares multiplied by free float factor (*ff*), on the day of the last revision of index basket. Free float is the proportion of shares tradable within the market place for a given stock. It is calculated as the difference between total number of shares, and shares that are not in the free float. Free float factor is calculated semi annually. It is applied from the moment of updating of the index basket, and it is valid until the next update.

In order to comply with our Statement of Principles, i.e. data for index calculation to be readily available in public domain, shares that are not in free float are considered only those owned by:

- Republic of Montenegro,
- Property of Fund PIO,
- Property of Employment Bureau,
- Property of Fund for Development
- Individuals or institutional investors whose share of ownership of companies, whose financial statements are published on one or both of Montenegrin stock exchanges, exceeds 10%.
- Privatisation Investment Funds whose ownership of a company in portfolio exceeds 50%. If there are two privatisation funds whose mutual ownership of a company exceeds 50% even though each of the funds has less than 50% stake in the company, reviewing committee may consider those shares non-free float.

Percentage of ownership of companies for the first four categories of owners is given in Privatization Plans of Republic of Montenegro for 2003, 2004, 2005, and 2006. The rest of the data is available on Montenegro and NEX Montenegro Stock Exchanges web sites. In cases where one or all of the above mentioned have sold their share they owned the number of sold shares is considered not to be in free float since new owners are not likely to sell those except in a block trade. The free float criteria may be adjusted when full ownership of all companies becomes in public domain which is not the case at present.

Free float (*ff*) is calculated as follows:

$$ff (\%) = 100\% - \text{Non free float}\%$$

$$\text{Number of shares in free float} = ff * \text{total number of shares}$$

$$\text{Free float market capitalization} = ff * \text{Total market capitalization}$$

## 6. 2 Free Float Weight Capping

In order to limit dominance of companies with disproportionately large market capitalisation on the index, weight of the free float of any company is capped to maximum of 20% in the index basket. After such adjustment the weight of the rest of the components in the basket is adjusted in iterative steps until participation of each component of the index basket becomes smaller or equal to 20%. Those weights are reviewed semiannually at the time of index revision.

## 7. Index Formula

AMNEX indices are calculated using Laspeyres' formula:

$$AMNEX_t = \frac{\sum_{i=1}^n p_{i,t} * q_{i,t} * ff_{i,t} * w_i}{d_t}$$

where

$AMNEX_t$  = value of index of selected securities traded on both of Montenegro's Stock Exchanges at time  $t$ ,

$n=x$  representing number of securities in the index

$i = 1, 2, 3, \dots, x$  representing certain component security within index basket

$p_{i,t}$  = The latest trade price of the component security  $i$  at time  $t$  for intra day reporting or the average price at the close of the Index on the previous day for daily calculation of the Index. The reported price is the simple arithmetic mean (average) which is calculated as a ratio of Value (EUR) and Volume of each traded security.

$q_{i,t}$  = number of shares in issue of the security  $i$  at time  $t$

$ff_{i,t}$  = free float factor of security  $i$  at time  $t$

$w_i$  = weight of the component security  $i$

$d_t$  = Index divisor, a figure that represents ratio of the total issued share capital of the Index basket and Index value, at time  $t$ . On the starting (base) date divisor is set as follows

$$d_t = \frac{\sum_{i=1}^n p_{i,t} * q_{i,t} * ff_{i,t} * w_i}{1000}$$

as the starting Index value is set to equal 1000 index points. The starting (base) date is 01.03.2003 (more precisely it's 28.02.0023 since there was no trade on 01.03.2003),

thus the same as for MOSTE, NEX20 and NEX PIF, in order to make them easily comparable over time.

The divisor stays unchanged unless there is a need to update the index basket. A company may increase number of shares in issue and thus increase own market capitalization as well as market capitalization of Index basket. Similarly, a composition of Index basket may change. In order to maintain the Index value to remain comparable over time a new divisor at time say  $t+1$  is calculated in the following way:

$$d_{t+1} = \frac{p_{i,t+1} * q_{i,t+1} * ff_{i,t+1} * w_i}{AMNEX_{t+1}}$$

where  $AMNEX_{t+1}$  is first calculated using the latest Index divisor  $d_t$

Values of **AMNEX** Indices will be calculated and published by Anglo Broker JSC. The calculation will be done in real time while publishing may have a slight delay due to commercial interests of the exchanges. Changes of the indices in respect to previous period may be published in absolute and percentage terms. **AMNEX** Indices are published on Anglo Broker's JSC web site ([www.anglobroker.com](http://www.anglobroker.com)) and on internet tickers of the same site but could be published by other media upon Anglo Broker's JSC approval.

## 8. Review Process

### 8.1 Index revision

- 8.1.1 In order to keep the indices under regular review and to ensure that they develop in line with market changes **AMNEX** committee tends to include wide variety of market practitioners in Montenegro.
- 8.1.2 The indices are reviewed semi-annually using average daily data for the last trading days in June and December of each year. In case certain stock is not traded on the days mentioned above, last average price of that stock is taken into consideration, provided that other criteria for the inclusion in the Index are fulfilled.
- 8.1.3 In terms of liquidity, only stock which were traded at least 100 times in a period since the last review are considered. This condition is relaxed to fifteen trades in 2004 and even further relaxed for 2003 because of an exceptionally low liquidity of the market. In exceptional market conditions, if trading volumes are very low, the **AMNEX** Committee may reduce the number of transactions securities are required to have traded in order to prevent excessive number of constituents being removed from the index.

- 8.1.4 During each index revision, following steps are taken:
- 8.1.4.1 new free float factor (*ff*) available in public domain is determined,
  - 8.1.4.2 all increases and decreases of number of shares are identified, number of shares of the issuer included in the index basket are corrected,
  - 8.1.4.3 creation of the new rank list based on market capitalization,
  - 8.1.4.4 setting limits to weight or ponder of companies whose participation in the index may exceed predetermined value and readjustment of weight of other index constituent
  - 8.1.4.5 adjustment of index divisor (*d*) on the day before implementation of the index revision,
- 8.1.5 After decision concerning change of the index basket is made, **AMNEX** Committee publicly announces:
- 8.1.5.1 content of index basket,
  - 8.1.5.2 list of shares of issuers which will be included in the index basket,
  - 8.1.5.3 list of shares of issuers which will be excluded from the index basket,
  - 8.1.5.4 explanation of reasons for inclusion and exclusion of the shares in and out of the index basket,
  - 8.1.5.5 effective date,
- 8.1.6 Shares are excluded from index basket only on revision dates, when:
- 8.1.6.1 less than hundred transactions are made in the given period, unless **AMNEX** committee has relaxed this rule due to low liquidity of the market,
  - 8.1.6.2 issuer submitted request for exclusion from the regulated, or unregulated market,
  - 8.1.6.3 procedure of bankruptcy or liquidation of issuer was started,
- 8.1.7 The Index Committee makes the final decision on exclusion of the share in question from the index basket.
- 8.1.8 In case of a deletion or suspension from trade of an Index constituent a reserve security would be included in the Index using described criteria for other constituents except that prices used would be the last day average price from the deletion date.
- 8.1.9 Occasionally, in exceptional circumstances, extraordinary index revision may take place. In the case of extraordinary index revision, the procedure is identical to regular revisions of the index basket. Significant changes of the characteristics of the components of index may include:
- 8.1.9.1 change in a free float of more than 10%
  - 8.1.9.2 more than 5% increase or decrease of number of shares of issuers.

- 8.1.9.3 the issuer application for delisting,
  - 8.1.9.4 commencing of procedure of bankruptcy or liquidation of the issuer,
  - 8.1.9.5 merger of issuer with another issuer,
  - 8.1.9.6 de-merger of issuers,
  - 8.1.9.7 temporary suspension of trading, which is longer than 20 trading days,
- 8.1.10 Procedure of extraordinary revision is carried out after the end of trading day.
  - 8.1.11 Changes are applied and become valid from the next trading day if possible.
  - 8.1.12 Details of the outcome of the reviews will be published as soon as possible after the **AMNEX** Committee meeting has concluded.
  - 8.1.13 The Secretary to the **AMNEX** Committee will be responsible for publicising the outcome of the periodic review.
  - 8.1.14 The Secretary to the **AMNEX** Indices Committee will be responsible for publishing the five highest ranking non-constituents of the **AMNEX 20** Index at the time of the periodic review.
  - 8.1.15 If a constituent is suspended on its exchanges it may remain in the indices, at the price at which it is suspended, for up to 10 business days. During this time, on advice from secretary of **AMNEX** Committee, the Chairman and Deputy Chairman of the Committee (or their deputies) may agree to delete the constituent immediately either at its suspension price, or at zero.
  - 8.1.16 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 or the suspension price.
  - 8.1.17 Securities which, on relisting are larger by market capitalisation than the smallest constituent of the index may be reinstated in the index at the price at which they were removed and the lowest ranking constituent will be selected for removal.
  - 8.1.18 Changes and exceptions to these Ground Rules can be authorised only by the Chairman of the **AMNEX** Committee or his nominee. In the event that the **AMNEX** Committee or any of those responsible for the operation and administration of the **AMNEX** Indices 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 Deputy Chairman (or their deputies) of the **AMNEX** Committee for a decision. If, however, the matter is urgent, the Chairman and Deputy Chairman (or their deputies) are collectively empowered to authorise an exception on behalf of the **AMNEX** Committee but must immediately notify, and subsequently refer the matter to, a meeting of the **AMNEX** Committee.

8.1.19 A constituent or prospective constituent company (or advisor acting on behalf of the company) may appeal against the decisions of the **AMNEX** Committee on two grounds: a) that the relevant Committee acted outside of the Ground Rules for the Management of the **AMNEX** Series of the **AMNEX** Indices; or b) that the relevant Committee when reaching its decision failed to take into consideration a substantial and material fact. A substantial and material fact is defined as a fact which would have influenced the decision of the Committee if it had been considered.

8.1.20 A request for an appeal must be made in writing to the Secretary of the **AMNEX** Committee and must be received within six months of the application of the event giving rise to the appeal.

## Appendix A

### Index Opening and Closing Hours

Index	Open	Close
<b>AMNEX 20</b>	9.00	2.00
<b>AMNEX IF</b>	9.00	2.00
<b>AMNEX All Share</b>	9.00	2.00

#### Notes:

1. The indices will not be calculated on Montenegro Public Holidays and days when Stock Exchanges are closed.
2. Timings are Montenegro hours (GMT+1 hour or BST+1 hour)

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