بورصة تونس
BOURSE DE TUNIS

INDEX RULE BOOK

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INDEX RANGE

THE TUNINDEX INDEX

TUNINDEX is a free-float market-capitalisation–weighted index with a base value of 1,000 as at 31 December 1997.

It is a total return index (dividends reinvested) designed to track the overall trend of the main equity market of the Tunis Stock Exchange.

TUNINDEX is also calculated and published in US Dollars and in Euros.

SECTOR INDICES

Sector indices are free-float market-capitalisation–weighted with a base value of 1,000 on 31 December 2005. They are calculated on a total return basis. Sector classification is based on the Industry Classification Benchmark (ICB). Each sector index is composed of TUNINDEX constituents assigned to the relevant sector. A holding company is classified according to its primary activity, determined by the business line that generates the largest part of its revenue. Sector indices measure the performance of a given segment. They are nested and calculated at two ICB levels:

- **level 1 (“Industry”) and**
- **level 2 (“Supersector”).**

THE TUNINDEX20 INDEX

TUNINDEX20 measures the performance of the 20 largest and most liquid equities listed on the main equity market of the Tunis Stock Exchange. It is free-float market-capitalisation–weighted with a base value of 1,000 as at 31 December 2006 and is calculated on a total return basis.

The index is designed for replication and to serve as a benchmark against which asset managers can assess portfolio performance on behalf of clients.

In parallel, a price-return version, TUNINDEXprice20, which does not reinvest dividends, is calculated and available. Both TUNINDEX20 and TUNINDEXprice20 are also calculated and disseminated in US Dollars and in Euros.

To meet asset-manager needs, a profitability variant valued at the volume-weighted average price TNVWAP20 is also calculated and available.

INDEX GOVERNANCE: THE EQUITY INDICES COMMITTEE

Index oversight is entrusted to an Equity Indices Committee. Its mandate is to manage the constituents of the Tunis Stock Exchange indices and ensure their reliability and representativeness.

Updates to the index constituents are decided by the Equity Indices Committee.

The Committee's composition, operating procedures, and the conditions governing the publication and effective date of its decisions are structured to ensure expertise, independence and transparency for the Tunis Stock Exchange indices.

The Committee comprises representatives from the Ministry of Finance, the Financial Market Council, the Central Bank of Tunisia, the National Institute of Statistics, the Tunisian Institute of Competitiveness and Quantitative Studies, as well as two academics appointed by the Ministry of Higher Education.

It meets at least twice a year and whenever necessary. Meetings may also be convened at the request of the Chair.

METHODOLOGY AND CALCULATION OF TUNINDEX AND SECTOR INDICES

I. COMPOSITION OF TUNINDEX AND SECTOR INDICES

The eligible universe for TUNINDEX and the sector indices comprises equities admitted to the main market of the Exchange whose listing period exceeds one month (from the first trading date)**. For each issuer, only the most actively traded line is retained.**

II. EXCEPTIONAL RULES FOR REMOVAL OF A CONSTITUENT

A security is removed from TUNINDEX and the relevant sector indices if :

a) it is moved to the "S" segment or

b) its suspension exceeds two months.

Once normal trading conditions resume (e.g., trading resume and the "S" segment status is lifted), the Committee may decide to re-include the security in the index.

III. CONSTITUENT REVIEW

TUNINDEX and the sector indices are reviewed quarterly in December, March, June and September, with changes taking effect on the first business day of January, April, July and October.

IV. CALCULATION

All indices are weighted by free-float market capitalisation.

Prices used in the calculation are closing prices (last traded price or static reservation threshold), estimated prices in the case of public offers, or reference prices for securities not traded on the day.

Adjustments due to deletion instruments, dividend payments and all corporate actions affecting constituents are implemented directly by the Exchange.

1. FREE FLOAT

Free float excludes the following elements:

- **Treasury shares and cross-holdings : shares held by subsidiaries controlled by the listed company or held directly by the company itself.**
- **State holdings : direct State stakes and holdings by State-controlled public entities.**
- **Shares held by founders : Shares held directly or indirectly by the company's founders, when the founders have managerial or supervisory influence (hold management positions, exercise control via voting rights, have influence that is a matter of public knowledge, etc.).**
- **Holdings by parties acting in concert and insiders (as defined by law), including administrators and first-degree relatives.**
- **Controlling blocks : holdings by legal entities (excluding founders and the State) that exercise control.**
- **Stable stakes : holdings above 5%; also smaller stakes where shareholders have industrial or strategic agreements with the issuer.**

The resulting free-float percentage is rounded up to the next 10% band.

2. 15% CAPPING

The maximum weight of any constituent in TUNINDEX is capped at 15% of the index's free-float market capitalisation. When a security breaches this threshold, its weight is reduced to 15% through a capping factor.

3. CALCULATION OF TUNINDEX

The TUNINDEX is calculated on the basis of free-float market capitalization using the following formula:

$$I^t = 1000 \times \frac{free\ \ float\ capitalization\ at\ t}{Adjusted\ base\ capitalization\ at\ t}$$

$$\mathrm{I}^{\ t} = 1000 \times \frac{\sum_{i=1}^{N} \left(Qi^t \times F_i^t \times f_i^t \times Ci^t \right)}{k^t \times CB^{\circ}}$$

Where :

t Calculation day

N Number of constituents in the index

Qi^t Number of shares of security i included in the index on time t

Fi^t Free Float Factor of security i

fi^t Capping factor of security i

Ci^t Price of security i on t

CB° Base-day market capitalization of the index sample

K^t Global adjustment coefficient at time t applied to the base market capitalization

4. CALCULATION OF SECTOR INDICES

The Sector Indexes are weighted by free float capitalization :

- **Sector indices use the same free-float factors and free-float market capitalisations as TUNINDEX.**

- **The free-float market capitalization of each constituent in the sector indices is the same as that applied in the TUNINDEX.**

V. DISSEMINATION

Index publication is provided by the Tunis Stock Exchange.

Indices are disseminated at market close regardless of the number of traded, reserved or suspended securities.

A sector index is published if :

- **the sample includes at least four securities in the sector and**
- **the sector's capitalization exceeds 2% of TUNINDEX capitalization.**

Publication is discontinued when the number of constituents falls below three.

METHODOLOGY AND CALCULATION OF THE TUNINDEX20 INDEX

I. COMPOSITION OF THE TUNINDEX20 INDEX

TUNINDEX20 comprises the 20 largest and most liquid securities traded with continuous mode on the main equity market.

II. CONSTITUENT REVIEW

The index undergoes an annual regular review in December and exceptional quarterly reviews in March, June and September to preserve representativeness.

1. REGULAR REVIEW (ANNUAL)

The index sample is updated annually in December, with the effective date set for the first business day of January.

Eligible universe

The top 25 free-float market capitalisations on the main market, listed for more than one month, traded with continuous mode and expected to remain so at the annual subdivision of listed shares. Only the most active quotation line is retained per issuer.

Selection criteria

Of the eligible universe, the 15 largest securities meeting a minimum turnover ratio are selected automatically. The remaining 10 are ranked by size (free-float market capitalisation) and by liquidity (traded value, turnover ratio, trading frequency, and bid-ask spread). A final rank (sum of sub-ranks) is assigned and the top 5 are added to form the 20 constituents. Ties are resolved by higher free-float market capitalisation.

Minimum turnover rate : the 10^{th} percentile of the turnover rates of the securities that will remain continuously listed during the annual allocation of listed equity securities; that is, 90% of these securities have a turnover rate higher than the minimum turnover rate.

Data

Free-float market capitalization is measured at the close of the last business day of November using unrounded free-float factors.

Liquidity metrics are computed from daily data over the 12 months preceding the Committee meeting (12/01/Y-1 to 11/30/Y). For newly listed securities, metrics are calculated 10 trading days after the first effective quotation.

The turnover ratio

The turnover ratio is the average of the daily ratio "shares traded on the central market / free-float shares" (unrounded free-float factors).

The volume

It's the average daily traded value on the central market.

The trading frequency

Trading frequency is the ratio of the number of sessions in which the security traded to the total number of trading sessions.

The bid-ask spread

The bid-ask spread is the percentage gap between best bid and best ask relative to their average.

2. EXCEPTIONAL REVIEW: FAST EXIT / FAST ENTRY

Exceptional revisions may be carried out on a quarterly basis, in March, June and September, with an effective date on the first business day of April, July and October.

Eligible universe

The top 25 free-float market capitalisations on the main market, traded continuously for more than one month. Only the most active quotation line is retained.

Fast exit

- **A constituent whose free-float market-cap rank deteriorates beyond 25 is removed and is replaced by the eligible security with the highest free-float market capitalization meeting the annual minimum turnover ratio (failing which, the outgoing constituent remains in the index).**

- **A constituent moved to fixing method trading, moved to the S segment, or suspended for two months is removed and replaced by the eligible security with the highest free-float market capitalization meeting the annual minimum turnover ratio (or, failing that, by the largest free-float market-cap eligible security).**

Fast entry

Any eligible security ranked ≤ 15 by free-float market capitalization and meeting the annual minimum turnover ratio is added in the Index, and the smallest free-float market-cap constituent is removed.

If a deletion occurs between two exceptional reviews, the replacement is the eligible security with the highest free-float market capitalization meeting the annual minimum turnover ratio.

For a newly listed security, the turnover ratio computed 10 trading days after first quotation must meet the minimum annual threshold.

Precision : For a newly listed security, the turnover ratio computed 10 trading days after first quotation must meet the minimum annual threshold.

Data

The free float market capitalization of a security is calculated based on information taken at the close of the last business day of the first half of March, June, and September, using unrounded free-float factors.

III. CALCULATION AND DISSEMINATION

TUNINDEX20 is free-float market-capitalisation–weighted and follows the same calculation and publication rules as TUNINDEX.

FREE-FLOAT AND CAPPING REVISIONS FOR THE INDEX RANGE

Free float is determined annually based on information available up to the last business day of November and rounded up to the next 10% band.

However, the upper 10% band is not applied when the calculated free-float value falls within the following ranges: [10%–11%[, [20%–21%[, …, [90%–91%[.

Updates are published after the December Committee meeting and take effect on the first business day of January.

Exceptional revisions may be implemented if, after rounding, the new free-float percentage differs by at least 10% from the previous rounded value following an event authorised by the Financial Market Council, or where threshold crossings modify the rounded free float by at least two bands. These updates are published in the Exchange Bulletin and take effect two trading days after publication.

Capping factors are recalculated annually using data at the close of the last business day of November and published alongside free-float updates to take effect on the first business day of January.

The Committee may exceptionally adjust the capping factors if the capital structure or the weights of the capped constituents are materially altered. These updates are published in the Exchange Bulletin and take effect two trading days after publication.

TNVWAP20

A security's free float is rounded up in 5% bands, and the maximum weight per constituent is 10% of the index free-float market capitalization.

However, the upper 5% band is not applied when the calculated free-float value falls within the following ranges: [5%–6%[, [10%–11%[, …, [95%–96%[.

INDEX ADJUSTMENT PROCEDURES

PRINCIPLE

Securities undergo various corporate actions throughout their lifecycle, which may affect their market prices.

Although such impacts are fully explainable, they are not directly related to the fundamental market mechanisms of supply and demand. If incorporated into the index without appropriate adjustment, these effects may introduce a break in the index time series and distort the performance measure the index is intended to provide.

It is therefore essential to avoid any break in the index and to ensure the required continuity. To that end, the Exchange applies adjustments designed to neutralise the impact of the corporate action, assuming that all other prices remain unchanged from the previous day:

Index level prior to market opening = Previous day's index level

The adjustment required to ensure that the index level prior to market opening equals the previous day's index level is applied through a correction of the base market capitalization.

From $I^t = I^{t-1}$ we deduce :

$$CBA^t = CBA^{t-1} \times \left(1 + \frac{\Delta CB}{CB^{t-1}}\right) = k^t \times CBA^{t-1} \text{ with } k^t = \left(1 + \frac{\Delta CB}{CB^{t-1}}\right)$$

where

t Date of a corporate action

I^{t-1} Last index level published prior to the adjustment

I^t Index level calculated after the adjustment

k^t Adjustment coefficient applied to the adjusted base market capitalization, **CBA_{t-1}**, in connection with the corporate event occurring on date t

CB^{t-1} Closing free-float market capitalization at t–1 (before any change to the index composition)

CBA^{t-1} Adjusted base market capitalization before the adjustment

CBA^t Adjusted base market capitalization after the adjustment

ΔCB Change in market capitalization resulting from the event

From all events that have modified the base market capitalization since the base date, it follows that :

$$CBA^t = k^t CBA^{t-1} = k^t k^{t-1} CBA^{t-2} = k^t k^{t-1} \ldots k^1 CBA^0$$

Thus:

$$CBA^t = K^t CBA^0 \text{ with } K^t = k^t k^{t-1} \ldots k^1$$

Where K^t is the global adjustment coefficient applied to the base market capitalization, CBA_0, in connection with the event occurring on date t.

MAIN ADJUSTMENT CASES

I- ADDITION OF A NEW CONSTITUENT

The inclusion of a new constituent in the index is decided by the Committee.

The market capitalization of the incoming security is added to that of the index.

The adjustment coefficient is then equal to : $k^t = \left(1 + \frac{\Delta CB}{CB^{t-1}}\right)$

where $\Delta CB = Q^t \times F^t \times f^t \times C^{t-1}$

with:

- k^t Adjustment coefficient applied to the adjusted base market capitalization, CBA^{t-1}
- CB^{t-1} Free-float market capitalization on the previous day (t–1)
- Q^t Number of shares of the new security included in the index at t
- C^{t-1} Closing price of the new security
- F^t Free-float factor
- f^t Capping factor

II- CASH DIVIDENDS

On the dividend payment date, the number of shares of the security included in the index is unchanged (Q^t) and the price of the security is reduced by the dividend amount $C^t = C^{t-1} - Dn$ where *C^{t-1} : Closing price of the security and Dn : Dividend amount.*

The total index market capitalization is adjusted by deducting the dividend amount. Consequently, an adjustment coefficient is calculated.

The adjustment coefficient is then equal to : $k^t = \left(1 - \frac{\Delta CB}{CB^{t-1}}\right)$

where $\Delta CB = Q^t \times F^t \times f^t \times Dn$

with:

- **F^t** **Free-float factor**
- **f^t** **Capping factor**

III- BONUS SHARE DISTRIBUTIONS

The bonus issue may be carried out on the exchange in several ways, the most common of which are as follows:

III-1 The detachment of the bonus right and the assimilation of the new shares occur on the same day

The number of shares of the security is increased by the number of new shares distributed through the bonus issue, and the price is reduced by the value of the bonus right. The overall index market capitalisation therefore remains unchanged, and no adjustment coefficient is calculated.

III-2 The detachment of the bonus right is not accompanied by the assimilation of the new bonus shares

The bonus right is determined as follows:

$$da = \left(\frac{N}{N + A}\right) \text{x} \left(C^{t-1} - Dn\right)$$

Where

- **N** **is the number of newly issued shares**
- **A** **is the number of existing shares**
- **C^{t-1}** **is the previous day's closing price of the security**
- **Dn** **is the last dividend paid**

If the new shares carry the same entitlement as the existing shares, Dn is equal to zero. The price is adjusted by reducing it by the theoretical value of the bonus right (d_a) $C^t = C^{t-1} - da$**, and in this case the overall index market capitalisation is adjusted by deducting the theoretical value of the bonus right from the market capitalisation of the security, based on the number of shares admitted at time t.**

The adjustment factor is equal to: $k^t = \left(1 - \frac{\Delta CB}{CB^{t-1}}\right)$

where $\Delta \text{CB} = \text{Q}^t \times F^t \times f^t \times \text{d}a$

with:

- **F^t** **Free-float factor**
- **f^t** **Capping factor**
- **da** **Theoretical value of the bonus right**
- **Q^t** **number of shares admitted to the index at the time of detachment ($Q^t=Q^{t-1}$)**

Once the new shares are assimilated, the operation is processed in the same manner as a standard share assimilation, through the capitalisation of the new shares (as described below).”

IV - RIGHT ISSUES

The right issue may be carried out on the exchange in several ways, the most common of which are as follows:

IV-1 Rights issue without subscription rights

The characteristics of the security remain unchanged. The overall index market capitalisation therefore remains the same, and no index adjustment factor is calculated.

IV-2 Rights issue with subscription rights

The subscription right is determined as follows:

$$ds = \left(\frac{N}{N+A}\right) \text{x} \left(C^{t-1} - PE - Dn\right)$$

where

- **N** **is the number of new shares to be issued**
- **A** **is the number of existing shares**
- **C^{t-1} is the previous day’s closing price of the security**
- **PE is the issue price of the new shares**
- **Dn is the last dividend paid**

If the new shares carry the same entitlement as the existing shares, D_n is equal to zero.

The price is adjusted by reducing it by the theoretical value of the subscription right (ds) $C^t = C^{t-1} - ds$**, and in this case the overall index market capitalisation is adjusted by deducting the theoretical subscription right from the market capitalisation of the**

security, based on the number of shares admitted at time t.

The adjustment factor is equal to: $k^t = \left(1 - \frac{\Delta CB}{CB^{t-1}}\right)$

Where $\Delta \mathrm{CB} = \mathrm{Q_t} \times F^t \times f^t \times \mathrm{ds}$

with:

- **F^t Free-float factor**
- **f^t Capping factor**
- **ds Theoretical value of the right**
- **Q^t number of shares admitted to the index at the time of detachment (Q^t=Q^{t-1})**

Once the new shares are assimilated, the operation is processed in the same way as a standard share assimilation, through the capitalisation of the new shares (as described below).

V- CASH ISSUE AND BONUS ISSUE

V-1 Assimilation of bonus shares and detachment of bonus and subscription rights occurring on the same day

The global theoretical right is:

$$d = C^{t-1} - \left(\frac{A \times C^{t-1} + N1 \times Dn + N2 \times (PE + Dn)}{A + N1 + N2}\right)$$

with :

C^{t-1} : the previous day's closing price of the security

PE : the issue price of the new shares

Dn : the dividend entitlement differential between the new shares and the existing shares. The reference is the last dividend paid.

A : the number of existing shares

N1 : the number of new shares issued as part of the bonus issue

N2 : the number of new shares issued as part of the right issue

The number of shares of the security is increased by the number of new bonus shares, and the closing price is reduced by a global right equal to the sum of the values of the bonus right and the subscription right.

The operation is treated in accordance with sections III-1 and IV-2 (detachment of the bonus right and assimilation of the new bonus shares, followed by the detachment of the subscription right). Accordingly, the market capitalisation of the security is adjusted by deducting only the theoretical subscription right from the market capitalisation

based on the number of existing shares.

The overall index market capitalisation is therefore modified, and an index adjustment coefficient must be calculated.

The theoretical subscription right is defined as: ds = d - da

with ds : Theoretical value of the right
da : Theoretical value of the bonus right
d : global theoretical right

The adjustment coefficient is then equal to $k^t = \left(1 - \frac{\Delta CB}{CB^{t-1}}\right)$

where $\Delta \mathrm{CB} = \mathrm{Q}^{\mathrm{t-1}} \times F^t \times \mathrm{f}^{\mathrm{t}} \times \mathrm{ds}$

with Q^{t-1} the number of shares admitted to the index at time t–1.
F^t Free-float factor
f^t Capping factor

V-2 Assimilation of bonus shares does not coincide with the detachment of bonus and subscription rights

The number of shares remains unchanged; only the price is adjusted for the rights. The overall index market capitalisation is modified by deducting the global theoretical right (bonus + subscription) from the market capitalisation, based on the number of existing shares. In this case, an index adjustment factor must therefore be calculated.

The adjustment coefficient is then equal to $k^t = \left(1 - \frac{\Delta CB}{CB^{t-1}}\right)$

where $\Delta \mathrm{CB} = \mathrm{Q}^{\mathrm{t-1}} \times F^t \times \mathrm{f}^{\mathrm{t}} \times \mathrm{d}$

with Q^{t-1} the number of shares admitted to the index at time t–1.
F^t Free-float factor
f^t Capping factor
d : global theoretical right

VI- DELETION OF A CONSTITUENT

The removal of a security from the index sample may occur either as a result of delisting or by decision of the Equity Indices Committee.

The outgoing security's market capitalisation is deducted from the overall index market capitalisation, and an index adjustment is applied.

The adjustment coefficient is then equal to $k^t = \left(1 - \frac{\Delta CB}{CB^{t-1}}\right)$

où $\Delta CB = \left(Q^{t-1} x C^{t-1}\right)$

Q^{t-1} the number of shares of the removed security that were admitted to the index at time t−1

C^{t-1} the previous day's closing price of the removed security

VII- CAPITAL REDUCTIONS

The reduction of share capital may be carried out on the exchange in several ways, the most common of which are as follows:

VII-1 Reduction through a decrease in the nominal value

VII-1-1 Case of a partial capital repayment

The operation is treated in the same manner as a dividend payment.
On the repayment date, the number of shares admitted to the index (Qt) remains unchanged, and the price of the security is reduced by the amount of capital to be repaid per share (to be paid out), as follows: $C^t = C^{t-1} - Vn$ **with C^{t-1} is the previous day's closing price of the security and Vn is the amount of capital to be repaid..**
It corresponds to the value that will be deducted from the previous day's market price (C^{t-1}) when the repayment occurs.

The adjustment coefficient is then equal to $k^t = \left(1 - \frac{\Delta CB}{CB^{t-1}}\right)$

où $\Delta CB = Q^{t-1} \times F^t \times f^t \times \left(C^{t-1} - C^t\right)$

avec :

- **Q^{t-1} the number of shares admitted to the index at time t–1.**
- **F^t Free-float factor**
- **f^t Capping factor**
- **d global theoretical right**
- **C^{t-1} the previous day's closing price of the security**
- **C^t the adjusted price of the security**

VII-1-2 Case of a simple reduction through a decrease in nominal value to absorb losses

The reduction of share capital to absorb losses by decreasing the nominal value does not affect the current market capitalisation of the security. Accordingly, the characteristics of the security remain unchanged (number of shares admitted and price). The overall index market capitalisation therefore remains the same, and no index adjustment factor is calculated.

VII-2 Cancellation of Shares

VII-2-1 Case of capital reduction through the simple cancellation of shares

From the overall index market capitalisation, the decrease in the security's market capitalisation corresponding to the cancelled shares is deducted.

The adjustment coefficient is then equal to $k^t = \left(1 - \frac{\Delta CB}{CB^{t-1}}\right)$

where $\Delta \mathrm{CB} = \mathrm{Q}^t \times F^t \times f^t \times \mathrm{C}^{t-1}$

with :

- Q^t **the number of shares cancelled at time t**
- F^t **the free-float factor**
- f^t **the capping factor**
- C^{t-1} **the previous day's closing price of the security**

VII-2-2 Case of capital reduction through the cancellation of shares to absorb losses

The reduction of share capital to absorb losses, carried out through a decrease in the number of shares, does not affect the current market capitalisation of the security. Accordingly, the market capitalisation of the security remains unchanged, and the overall index market capitalisation also remains the same.
The number of shares of the security is reduced by the number of cancelled shares, and the price is adjusted so that the security's index market capitalisation remains unchanged. Therefore, no index adjustment coefficient is calculated.

VIII- ASSIMILATION OF NEW SHARES

When new shares are assimilated with existing shares, the number of shares admitted to the index (Qt) is increased by the number of newly admitted shares, and the overall index market capitalisation is modified. Since the price remains unchanged, an index adjustment coefficient must be calculated.

Corporate actions that may increase market capitalisation through the creation of new shares — without affecting the price — mainly include: the admission and assimilation of new shares resulting from a capital increase; the admission of shares following a contribution in kind or a merger-absorption.

The overall index market capitalisation is adjusted by capitalising the newly created shares.

The adjustment coefficient is then equal to $k^t = \left(1 + \frac{\Delta CB}{CB^{t-1}}\right)$

where $\Delta CB = Q^t \times F^t \times f^t \times C^{t-1}$

with :

- Q^t **the number of new shares that are admitted to the index at time t**
- F^t **the free-float factor**
- f^t **the capping factor**
- C^{t-1} **the previous day's closing price of the security**

IX- STOCK SPLITS AND REVERSE SPLITS

A stock split carried out through a decrease in nominal value, or a reverse split carried out through an increase in nominal value, does not affect the current market capitalisation of the security. The overall index market capitalisation therefore remains unchanged, and no index adjustment factor is calculated. The new number of shares is incorporated into the index calculation as soon as the security trades ex-split or ex-reverse-split.

X- PUBLIC OFFERS

During the suspension period preceding a public offer (OPA, OPE), the price used for index calculation is the last reference price, as long as the opening notice has not been published by the Financial Market Council.

From the day following the publication of the opening notice or the approval notice, and until trading resumes, the price used for index calculation is the offer price (or any successive increased offer prices, in the event of competitive bidding).