

## 1. Description of the index

### 1.1 Az index hivatalos magyar neve

CAIB Értékpapír Rt. - TV3 Profitvadász Magyar Államkötvény Index

### 1.2 Official English name of the index:

CAIB Securities Ltd. - TV3 Profitvadász Hungarian Government Bond Total Return Index

### 1.3 Az index hivatalos rövid neve

MAX

### 1.4 Basis of the index:

100.0000 points on December 31, 1996 (trading day)

### 1.5 Frequency of calculating and publishing the index:

The index is calculated once each trading day during the daily trading hours of government bonds. The daily index value is rounded to four decimal points and published in HUF, American dollars and German marks, on Reuters' HUBONDINDEX1 and .HUMAXBILL pages after 2 pm CET every day.

### 1.6 Formula of the index:

$$index_t = index_{t-1} \frac{\sum_i w_{t-1,i} [mid_{t,i} + intacc_{t+2,i} + intpay_{t+2,i}]}{\sum_i w_{t-1,i} [mid_{t-1,i} + intacc_{t+1,i}]}$$

where

$mid_{t,i}$  is the arithmetical average, rounded to 4 decimals, of the best bid and offer price of government bond 'i' on trading day 't' with payment on trading day 't+2' based on primary dealers' two-way secondary market price quotation, which is published by the Government Debt Management Agency.

$intacc_{t+2,i}$  is the interest accrued on government bond 'i' until the trading day 't+2', rounded to 4 decimals.

$intpay_{t+2,i}$  is the interest payment for government bond 'i' on trading day 't+2'.

$w_{t-1,i}$  is the weight of the government bond 'i' in the index basket on the 't-1' trading day.

## 2. Objective of the index

As a result of the austerity package introduced in 1995, Hungarian economy is on its way to stabilisation, and this fact has had a fundamental effect on the government securities market as well. Starting from the second half of 1995, the market demand has shifted from short term or floating rate securities playing a dominant role until then to longer term fixed rate government securities. The changes that have taken place in the maturity structure called for the establishment of a benchmark for the

government securities market that would give a more realistic picture of the recent market structure than the existing means.

For the time being, the structure of the Hungarian government securities market is changing all the time, but there are two underlying tendencies the effects of which may already be felt:

- The share of government bonds in the total volume of government securities issued is increasing continuously, and
- the share of long-term fixed rate government bonds is growing continuously as compared to that of short term and floating rate securities.

The above developments were all taken into consideration when the MAX INDEX was worked out. The purpose was to make the MAX INDEX a reliable benchmark for institutional and private investors against which they can measure the performance of their own government bond portfolios. In developing the index, it was an important criterion that its composition should reflect the prevailing structure of the government bonds market, especially in terms of size and liquidity of bonds. Consequently, the index basket corresponds to a usual, passively managed and well diversified portfolio of government bonds. From the numerous existing index calculation methods, the total return index concept laid down by the European Federation of Analysts' Societies (EFFAS) Commission on Bonds was applied to the MAX INDEX. A characteristic feature of the total return index is that it uses dirty prices (clean price + accrued interest) so the accrued interest is continuously increasing the index value. All coupons paid by the issuer for the constituent bonds are automatically reinvested in the index, proportionally to the weights of the bonds in the index basket. If a government bond is excluded from the index basket, the market value of the bond shall be reinvested in the actual index basket. As the index is calculated by using the so called chain-link method, i.e. the today's index value is defined as the previous day index value multiplied by the weighted percentage change in dirty prices of the current constituents since the previous index calculation, the changes in the constituents should not cause the index calculations to jump or get distorted.

The index basket consists of the most liquid fixed rate government bonds on the Hungarian market for which Primary Dealers are required to quote continuous bid and offered prices up to HUF 50 million. Accordingly, investors involved in the Hungarian government securities market can at any time set up a portfolio corresponding to the composition of the MAX INDEX basket.

### 3. General principles

#### 3.1 Composition of the index basket

A bond will be added to the index basket if it meets the following criteria:

- it is a fixed rate Hungarian Government Bond that has been issued publicly,
- it is subject to Primary Dealer price quotation obligation, and Primary Dealers quote secondary market bid and offer prices for the government bond,
- it has more than 365 days to final maturity when the bond is added to the index basket.

### 3.2 Weighting of government bonds included in the index basket

Government bonds are represented in the index basket by their amount accepted at the auctions at par value. The sum of these amounts constitute the total nominal value of the index basket. The weight of individual government bonds in the index basket is determined by the relationship of their nominal value accepted at the auction to the nominal value of the whole index basket. The weights of constituent government bonds is reviewed once a month, on the first trading day of the month following the month when the government bond was re-opened. In case the re-opening date of a constituent government bond falls on the first trading day of a month, the weight of the bond is reviewed on the first trading day of the given month.

### 3.3 Reinvestment of coupons paid

The coupons paid by the issuer for constituent bonds are reinvested in government bonds included in the current index basket on the interest payment date in proportion to the weights of the individual bonds.

### 3.4 Reviewing the basket of bonds

#### 3.4.1 Inclusion

In case the Hungarian State Treasury Government Debt Management Agency issues a government bond that has not existed before and meets all the requirements for the inclusion in the index basket, the government bond will be selected for being added to the basket on the first trading day of the next month. If a given government bond meets all requirements for inclusion in the index basket on the first trading day of the month, it is added to the basket on that day.

#### 3.4.2 Exclusion

In case the residual maturity of a constituent government bond decreases below 365 days from the value date of the index to the redemption date of the bond, than the bond is excluded from the index basket at its current price value on the first trading day of the next month. If on the first trading day of a month the residual maturity of a constituent government bond is exactly 365 days from the index value date to the redemption date of the bond, than it is excluded from the index basket on that day.

In line with the index calculation method, the current price value of the bonds excluded is reinvested in the index constituents according to their weights on the day of exclusion.

### 3.5 Treatment of extraordinary events

#### 3.5.1 Interest payments falling due on holidays

If the interest payment of a constituent bond falls due on a holiday, the amount of interest will not be paid or reinvested until the next working day. For index calculation purposes, the coupon payment shall be included in the formula two trading days before the actual payment date.

### 3.5.2 Lack of price quotation for a security

In case Primary Dealers temporarily suspend price quotation for a constituent bond, or incorrect price information is disseminated for technical reasons, the last correct clean price should be used for calculating the index for not longer than 5 consecutive trading days.

In case Primary Dealers' price quotations or the dissemination of correct price information of the bond is not restored within 5 trading days from the date of suspension the bond must be temporarily excluded from the basket at its current price value on the fifth trading day.

If Primary Dealers' price quotations or the dissemination of correct price information of the bond temporarily excluded from the basket return, the bond must be reinstated at its current price value in the index basket with the same value date.

In accordance with the index calculation method, the current price value of government bonds being temporarily excluded from the index basket is reinvested in constituent bonds according to their weights on the day of exclusion.