

TREASURY BONDS LINKED TO EURO-ZONE INFLATION (BTP€is)

Treasury Bonds linked to Euro-zone inflation are securities that provide investors with protection against price increases. Both the principal to be redeemed at maturity and their coupons, paid semi-annually, are adjusted for inflation in the Euro-zone, as measured by the Harmonised Index of Consumer Prices (HICP), excluding tobacco.

Monthly data for the Eurostat index may be found at the Statistical Office of the European Communities website: [Eurostat - Tables, Graphs and Maps Interface \(TGM\) table](#)

As a result of the indexation mechanism employed, at the bonds' maturity their holders shall recover any loss in purchasing power that occurred during the bonds' term. The return of the nominal amount of BTP€is subscribed is in any event ensured: if there is a fall in prices during the security's term the amount redeemed at maturity shall be no less than the nominal value (100).

If the bond is paid before maturity, the paid amount will be equal to (i) the principal amount subscribed multiplied by the inflation index coefficient or, if this coefficient is less than or equal to one, the nominal principal amount; plus (ii) accrued interest calculated as described at point 2.7.

Coupons paid to subscribers are in variable amounts but will ensure a steady return in real terms, that is, in terms of purchasing power. The amount of each coupon is calculated by multiplying the fixed interest rate, established upon issue, by the principal amount subscribed, adjusted for the inflation between the interest commencement date and the coupon's payment date.

Auctions are reserved for institutional intermediaries authorized in accordance with legislative decree no. 58 of 24 February 1998 (see the "Authorized dealers" section).

MAIN FEATURES OF BTP€is

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|---------------------------|---|
| Currency | Euro. |
| Maturities | 5, 10, 15 and 30 years. |
| Remuneration | Floating semi-annual coupons in arrears, linked to the Eurostat Harmonised Index of Consumer Prices, excluding tobacco, possible discount at issuance and revaluation of principal at maturity. |
| Type of auction | Marginal auction with discretionary determination of allocation price and quantity issued, with a cap on the maximum amount to offer. |
| Auction frequency | Monthly. |
| Settlement Dates | T+2 on the primary and secondary markets. |
| Market Conventions | Actual/actual for yield and accrual calculation. |
| Redemption | Single payment at maturity; the principal is adjusted on the basis of the Indexation Coefficient for the relevant maturity date and cannot be less than the security's nominal value. |

PRACTICAL INFORMATION ON BTP€is

Useful information on features and functionality of this instrument is outlined below.

- 1. INVESTING IN BTP€is**
- 2. INDEXATION**
- 3. MINIMUM DENOMINATION**
- 4. TYPE OF AUCTION**
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1. INVESTING IN BTP€is

BTP€is are issued with maturities of 5, 10, 15 and 30 years. They are floating medium/long-term bonds, particularly suited for investors who require six-month payments linked to inflation rates, in particular that of the euro area, and who intend to preserve over time the real value of the capital invested.

Until September 2004, BTP€is were issued exclusively by way of placement syndicates created for this purpose. In September 2004, for the first time, the auction procedure was also adopted (for the issuance of the third tranche of the 10-year BTP€i). These bonds are issued through a marginal auction, with discretionary decision of the auction price and of the nominal amount issued within an interval communicated in advance. For the purchase of bonds, the subscription price is obtained by multiplying the auction price (marginal price), which is expressed in “real” terms – that is, net of the indexing component – by the Indexation Coefficient referring to the auction payment date (see point 2.1).

Since 2005 the Treasury has issued these bonds monthly, on the basis of market conditions, making use of both auctions and placement syndicates. Once the auction procedure is selected, the issuance takes place in the second half of the month, on the business day preceding the medium/long-term auction. The Treasury will announce the bonds in issuance, and the respective maximum quantities to be offered, with the first announcement of the end-month auction of medium/long-term bonds, which is four business days prior to the auction.

BTP€i notes can be bought and sold, before maturity, by institutional investors on the regulated secondary market (MTS), for transactions of no less than 2.5 million euros; private citizens, on the other hand, can perform these transactions on the regulated secondary market for retail investors, the MOT (*Mercato Telematico delle Obbligazioni e dei Titoli di Stato*), with a minimum denomination of 1,000 euros.

The price quote of BTP€is on the secondary market is in “real” terms; thus the quoted price does not take into account the indexing component. The trade price, or the price at which the BTP€is are bought or sold on the market, is, rather, obtained by multiplying the quoted price by the Indexation Coefficient relative to the transaction payment date.

Furthermore, BTP€is can separate the coupon components from the principal (coupon stripping). The minimum amount of the separation request, to be submitted to Monte Titoli S.p.A., is

1,000,000 euros; the maximum amount that can be separated must not exceed 50% of the outstanding nominal capital of the same bond.

2. INDEXING

BTP€is provide constant rates of interest in real terms, that is in terms of purchasing power, fixed at their date of issue (known as the real annual coupon rate). The variable amount of the semi-annual coupons is calculated by multiplying half the real annual coupon rate by the nominal principal amount recalculated as at the coupon's payment date.

The recalculated nominal principal amount is the subscribed nominal principal amount multiplied by the Indexation Coefficient at the coupon's payment date.

2.1 The Indexation Coefficient

The Indexation Coefficient (IC) is calculated on the basis of the rate of inflation measured by the Harmonised Index of Consumer Prices for the Euro area, excluding tobacco, calculated and published each month by Eurostat (Eurostat Index).

The coefficient allows the calculation of adjusted values of the nominal principal amount, for a day d of a month m , on the basis of price inflation.

The IC is calculated using the following formula:

$$IC_{d,m} = \frac{\text{Reference Inflation}_{d,m}}{\text{Base Inflation}}$$

where *Reference Inflation* is the rate of inflation described in the following paragraph; and *Base Inflation* is the value of Reference Inflation as at the interest commencement date.

Only six decimal places of the value of the Coefficient calculated in this manner are considered, the value's fifth decimal place is rounded.

On a monthly basis, the Ministry of Economy and Finance publishes daily values for the Indexation Coefficient in the Statistics section of the Public Debt website.

2.2 Reference Inflation

Reference Inflation for a particular date (a day d of a month m) is calculated on the basis of the Eurostat Indices for the second and third month prior to the month for which the calculation is being made, as per the following formula:

$$RI_{d,m} = EI_{m-3} + \frac{d-1}{dd} * (EI_{m-2} - EI_{m-3})$$

where:

$RI_{d,m}$ is the Reference Inflation of day d of month m ;

EI_{m-3} is the Eurostat Index value for the month three months prior to that being calculated;

EI_{m-2} is the Eurostat Index value for the month two months prior to that being calculated;

d is the day of the month being calculated;

dd is the actual number of days in month m .

The Reference Inflation thus calculated maintains its first six decimal places with the fifth subject to rounding.

For further information, please see the numerical example of the value of reference inflation for inflation-linked BTPs, published on this website.

2.3 Changes to Eurostat Index

If the values of the price index should be altered after their initial publication, calculations shall continue to apply the values published prior to such alteration.

2.4 Non publication of Eurostat Index

If the Eurostat Index is not published within a suitable period in relation to a month m , a Substitute Index (SI) shall be used, calculated according to the following formula:

$$SI_m = EI_{m-1} \times \left(\frac{EI_{m-1}}{EI_{m-13}} \right)^{1/12}$$

The Substitute Index shall be applied in determining payments for interest or for the redemption of principal that are made prior to the publication of the definitive values for the index. Payments made on the basis of the Substitute Index shall not be subject to amendment.

2.5 Redemption of Principal

The principal to be redeemed at maturity is calculated by multiplying the subscribed nominal principal amount by the Indexation Coefficient, calculated for the maturity date. The coefficient takes into account the variation in prices that occurred during the bond's term.

If the value of the Indexation Coefficient for the maturity date is less than one, the amount of the principal redeemed shall be the nominal value of the bonds. Consequently, if during the bonds' term there is a reduction in prices, the amount redeemed at maturity shall be in any event equal to the bonds' nominal value (100).

2.6 Semi-annual coupons

Gross semi-annual amounts of interest are calculated by multiplying the coupon rate by the bonds' minimum denomination (mentioned in paragraph 3) and by the Indexation Coefficient as at the coupon's payment date.

The amount thus calculated, including at least ten decimal places, is multiplied by the number of times which this minimum denomination can be included in the nominal amount of the payment to be made. For the purposes of payment, the calculated value is rounded to the second decimal place.

2.7 Accrued interest

Accruing interest is calculated by multiplying the accrued interest for the coupon, calculated in accordance with the conventions used for BTPs, by the Indexation Coefficient for the day object of the calculation.

If BTP€is are bought or sold at any date between coupon payment dates, the purchaser shall pay the seller the amount of interest accrued from the last coupon payment date to the transaction's settlement date (day d of month m).

The calculation of the BTP€i coupon amount (CA) occurs in two stages.

1. The percentage of the coupon that has accrued to the settlement date of the transaction (CA%) is calculated:

$$CA\% = \text{Coupon \%} * \frac{\text{relevant days}}{\text{days between payment of two coupons}}$$

where “relevant days” is the number of days between the payment date of the previous coupon and the settlement date (day d of month m).

2. The figure obtained is then multiplied by the subscribed amount of principal recalculated as at the settlement date (equal to the nominal amount subscribed multiplied by the Indexation Coefficient):

$$CA_{d,m} = CA\% * \text{Nominal Amount} * IC_{d,m}$$

3. MINIMUM DENOMINATION

BTP€is may be subscribed for a minimum nominal amount of 1,000 euros and multiples thereof.

4. TYPE OF AUCTION

BTP€is are offered through a marginal auction with discretionary determination of price and quantity issued within an interval communicated in advance. There is a cap on the maximum amount to be offered and there also is a mechanism of speculative bid exclusion. This mechanism is described in detail in every issuance decree. The same decree sets supplementary placement terms, reserved to specialists in Government bonds, technically treated as a subsequent tranche. The quota reserved to Specialist is equal to 30% of the amount allocated in the ordinary auction for the first tranche and 15% for further tranches. Only specialists who took part in the last auction have access to this supplementary placement.

Each of the five bids that an intermediary can place cannot be less than 500,000 euros.

Bidders can submit prices with a minimum tick of one euro cent or multiples thereof.

The execution of the operations concerning BTPs auction is responsibility of Bank of Italy.

For each security to be issued auction fees will be applied based on residual maturity, which will be set according to the number of days between the auction settlement date and the maturity date, according to the table below:

| Residual maturity in Years | Residual maturity in days | | Fees |
|-----------------------------------|----------------------------------|-------|-------------|
| BTP€i up to 3 years | 1 | 1460 | 0.15 |
| 5 Year BTP€i | 1461 | 2190 | 0.25 |
| 7 Year BTP€i | 2191 | 3102 | 0.30 |
| 10 Year BTP€i | 3103 | 4562 | 0.35 |
| 15 Year BTP€i | 4563 | 8212 | 0.35 |
| 30 Year BTP€i | 8213 | 99999 | 0.40 |

5. MATURITIES

Currently BTP€is have maturities of 5, 10, 15 and 30 years.

6. AUCTION CALENDAR

BTP€i auctions are usually held monthly, during the fourth week, together with the CTZ auction and before the 6-month BOT, nominal BTP and CCTeu auctions.

7. AUCTION ANNOUNCEMENTS

The relevant information can be accessed at the pages “[BTP€i issue announcements](#)” and “[Latest BTP€i auction results](#)” of the Public Debt web site (http://www.dt.tesoro.it/en/debito_pubblico/).

The Public Debt website also provides specific information on taxation for these bonds.

Daily values for the Indexation Coefficient, for use in the calculation of the adjusted principal as at the particular date, are published on the same website and are also published each month by the leading press agencies specialising in the distribution of financial information.