

Euro-BTP Futures and Options at Eurex: Trading the Italian Yield Curve

May 2019



Agenda

- **Background**
- **Volume and Open Interest Development**
- **Euro BTP Futures: Contract specifications**
- **Opportunities in Trading and Clearing BTP Futures**
- **Euro BTP Options: Contract specifications**
- **Opportunities in Trading BTP Options**
- **Wholesale Offering**

Background: Eurex Euro-BTP Futures

Launch of Futures on BTP

Eurex successfully launched the Long-Term Euro-BTP Futures in September 2009 followed by the Short-Term Euro-BTP Futures in October 2010 and Mid-Term Euro-BTP Futures on September 19, 2011. All three contracts continue to show consistent and growing demand with a combined total of over 50 million contracts traded in 2018 alone.

Hedging and Speculation

The conditions with regards to the divergence and volatility of yield spreads across Europe have persisted due to the sovereign crisis. The prevalence of sovereign factors and the volume and volatility of Italian debt is continuing to produce demand for hedging instruments.

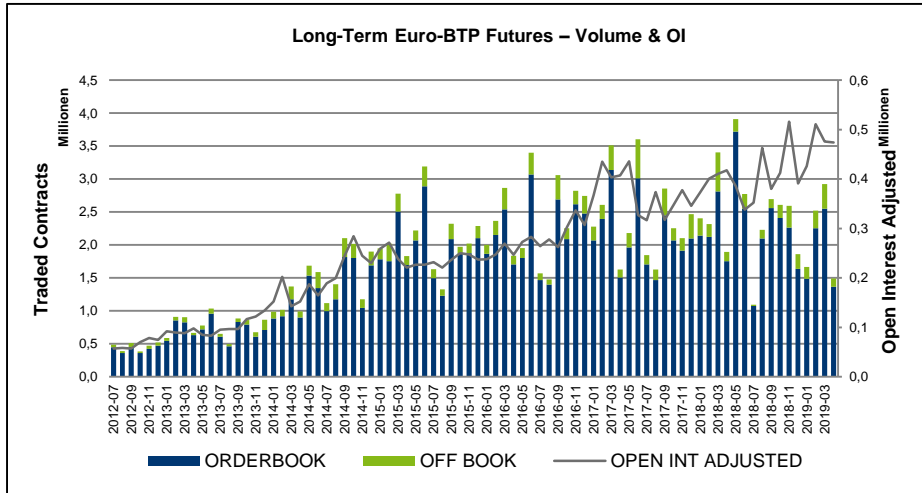
Launch of Option on BTP

In 2017 Eurex completed the offering for the Italian government bond market with the launch of Options on Euro-BTP Futures (OBTP). Market participants can now benefit from an efficient, accessible and cost-effective instrument that extends hedging and trading opportunities by facilitating the trading of volatility in the long-term maturity range of the Italian interest rate curve.

Eurex T7 Entry Services

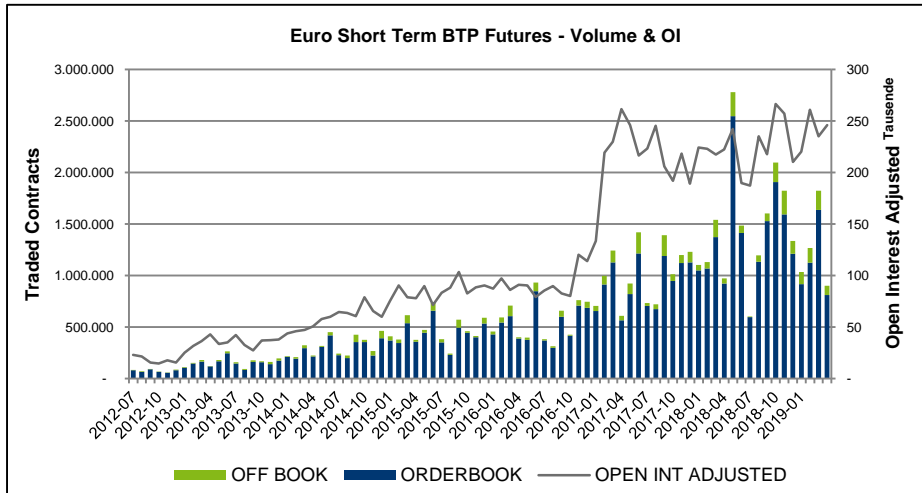
Use the T7 Entry Services to enter bilaterally agreed off-book block trades and benefit from the advantages of centralized clearing and settlement.

Monthly Volume and OI Development in Short- and Long-Term Euro-BTP Futures



Long-Term Euro-BTP

- Total contracts traded since 2017: 67.3 Million
- Traded contracts 2018: 29.77 Million
- Traded contracts YTD 2019 : 8.6 Million
- Open Interest e/o April 2019: 473,853



Short-Term Euro-BTP

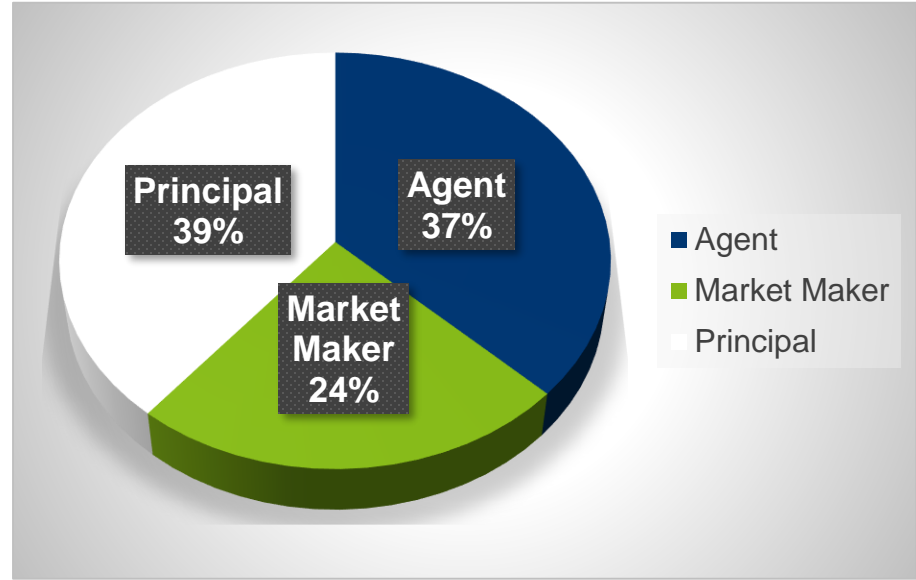
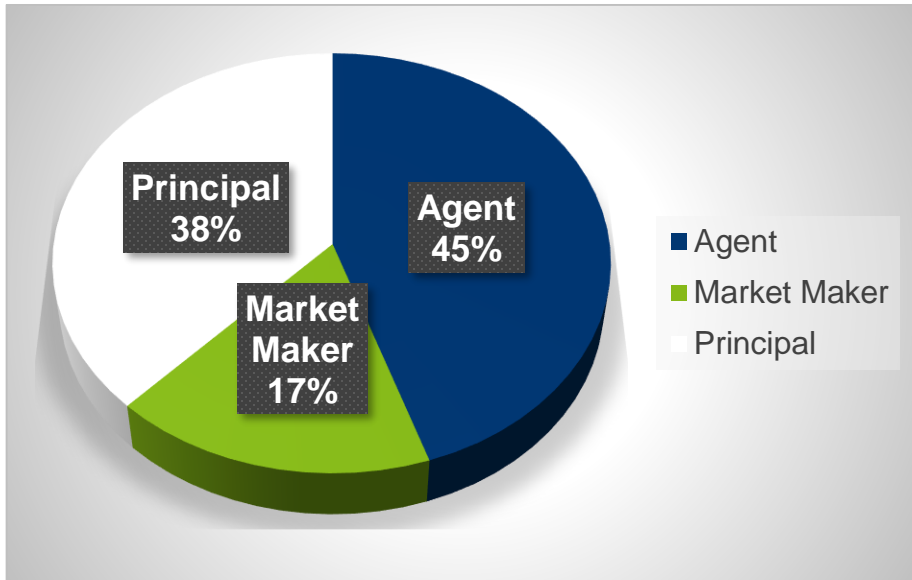
- Total contracts traded since 2017: 33.98 Million
- Traded contracts 2018: 17.7 Million
- Traded contracts YTD 2019 : 5.02 Million
- Open Interest e/o April 2019: 246,203

* Data as of 30th April 2019

Trading Volumes per Account: Eurex Euro-BTP Futures

Long Term - Euro BTP Futures - 2019*

Short Term - Euro BTP Futures – 2019*



* Data as of 30th April 2019

Contract Specifications: Eurex Euro-BTP Futures

	Short-Term BTP	Mid-Term BTP	Long Term Euro-BTP
Underlyings	Notional short-term debt instrument issued by Italy with a remaining term of 2.0 to 3.25 years and a six percent coupon	Notional mid-term debt instrument issued by Italy with a remaining term of 4.5 to 6.0 years and a six percent coupon	Notional long-term debt instrument issued by Italy with an original maturity not longer than 16 years and a remaining term of 8.5 to 11 years and a six percent coupon
Product IDs	FBTS	FBTM	FBTP
Contract Value	EUR 100,000		
Fee and Pricing	EUR 0.20 per contract; Off-Book: EUR 0.30 per contract		
Settlement (via CBL)	Italian government bonds that have a remaining term of 2.0 to 3.25 years on the Delivery Day. Such debt securities must have a minimal issue amount of EUR 5 billion and a nominal fixed payment	Italian government bonds that have a remaining term of 4.5 to 6 years on the Delivery Day. Such debt securities must have a minimal issue amount of EUR 5 billion and a nominal fixed payment.	Italian government bonds that have an original maturity of not more than 16 years and remaining term of 8.5 to 11 years on the Delivery Day. Such debt securities must have a minimum issue amount of EUR 5 billion and a nominal fixed payment.
Price Quotation Tick Size / Value	In percent of the par value, with two decimal places. The Minimum Price Change is 0.01 percent, equivalent to a value of EUR 10.		
Contract Months	Up to 9 months: The three nearest quarterly months of the March, June, September and December cycle.		
Delivery Day	The tenth calendar day of the respective quarterly month, if this day is an exchange day; otherwise, the exchange day immediately succeeding that day.		
Last Trading Day	Two exchange days prior to the Delivery Day of the relevant maturity month. End of trading for the maturing delivery month is 12:30 CET.		
Trading Hours	08:00–19:00 CET, on the Last Trading Day 08:00–12:30 CET.		

Opportunities in Trading and Clearing: Eurex Euro-BTP Futures

Hedging

Offers the market an instrument to hedge Italian debt on-exchange, and removes the basis risk currently present when hedging with Bund, Bobl or Schatz-Futures.

Spread Opportunities

Offers the market an alternative to cash bonds to trade the respective yield spread between German and Italian debt.

Basis Trading

Presents an opportunity to trade the basis on Italian debt instruments and therefore complements the Italian cash market.

Yield Curve Trading

Enhanced opportunities to trade the Italian yield curve.

Trading the Switching Option

Allows fund managers to take advantage of opportunities created by changes in the Cheapest-To-Deliver.

Eurex Clearing

Reduced counterparty risk and the potential for margin off-sets against other Eurex Fixed Income Futures positions.

Options on Long Term Euro-BTP Futures (OBTP)

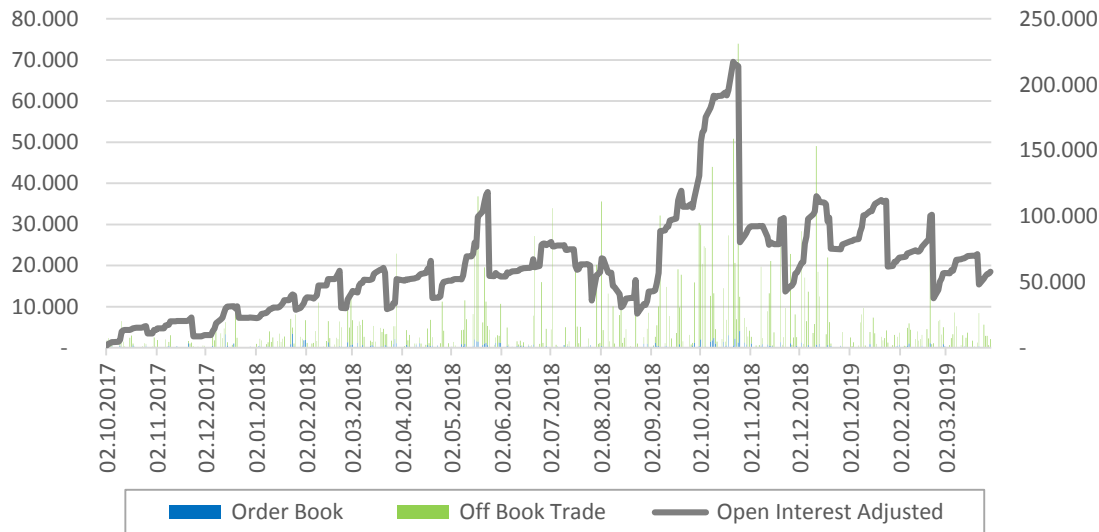
- In 2017 To meet market demand, we launched our offering for the Italian government bond market with Options on Long-Term Euro-BTP Futures (OBTP). Eurex participants can now benefit from an efficient, accessible and cost-effective instrument that extends hedging and trading opportunities by making the volatility in the long-term maturity range of the Italian interest rate curve tradable.
- Market Makers are active and provide liquidity in the order book.
- Market makers are obliged to quote continuously calls and puts in four strike prices each from a window of 17 strikes around the current underlying price in the first two expiration months. Strikes selected for the strike price window are the 17 strikes nearest to the current price of the respective Fixed Income Future. Asymmetric quotation is allowed.
- This product has had a successful launch and continues to grow with 1,717,815 contracts traded in 2018.

Contract Specifications: Eurex Euro-BTP Options

	Euro-BTP Options
Underlying	Futures on a notional long-term debt instrument issued by the Republic of Italy with an original maturity not longer than 16 years and a remaining term of 8.5 to 11 years and a six percent coupon.
Contract size	One Euro-BTP-Futures contract
Price quotation / Minimum price change	Price quotation is based on points with two decimal places Minimum price change is 0.01 points/EUR 10
Settlement	The exercise of an option on Euro-BTP-Futures results in the creation of a corresponding position in Euro-BTP-Futures for the option buyer as well as the seller to whom the exercise is assigned. The position is established after the Post-Trading Full Period of the exercise day, and is based on the agreed exercise price.
Last trading day	Last trading day shall be the last Friday prior to the first calendar day of the expiration month that is followed by at least two exchange days prior to the first calendar day of the expiration month. Unless at least two exchange days lie between the last Friday of a month and the first calendar day of the expiration month, the last trading day shall be the Friday preceding the last Friday of a month. If such Friday thus determined, however, is not an exchange day, then the exchange day immediately preceding such Friday shall be the last trading day. Close of trading in all option series on the last trading day is at 17:15 CET.
Exercise	American-style, an option can be exercised until the end of the Post-Trading Full Period (18:30 CET) on any exchange day during the lifetime of the option, or until 18:00 CET on the last trading day.
Exercise prices	0.50 (50 cents)
Contract months	Up to six months: The three nearest successive calendar months, as well as the following quarterly month of the March, June, September and December cycle thereafter. Calendar months: The maturity month of the underlying futures contract is the quarterly month following the expiration month of the option. Quarterly months: The maturity month of the underlying futures contract and the expiration month of the option are identical.
Minimum block trade size	100 contracts
Option premium	The premium is settled using the futures-style method.

Volume and OI Development: Options on Long-Term Euro-BTP Futures (OBTP)

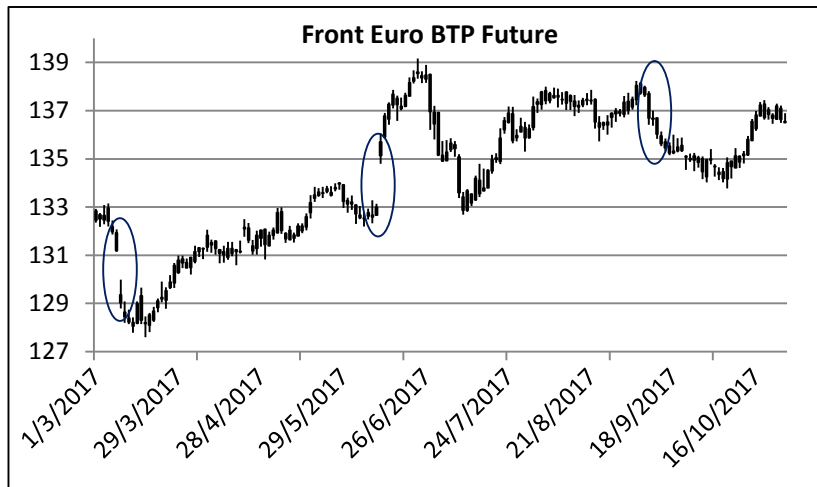
Euro- BTP Options - Volume Development



Options on Long -Term Euro-BTP Futures (OBTP)

- Traded contracts 2018: 1,717,815
- Traded contracts YTD 2019 : 83,608
- ADV 2017: 1,360 contracts
- ADV 2018: 6,790 contracts
- ADV 2019: 3,375 contracts
- Open Interest e/o April 2019: 65,725

Hedge exposure to BTP bonds markets



Issue date	Issuance (BTP)	Volume	Coupon	Maturity date
22/01/2013	IT0004889033	21.8 € bn	4.75 %	01/09/2028
01/02/2017	IT0005240830	16.3 € bn	2.20 %	01/06/2027
01/08/2016	IT0005210650	18.0 € bn	1.25 %	01/12/2026
04/07/2017	IT0005274805	10.5 € bn	2.05 %	01/08/2027

Protect bond portfolios against price risks in underlying Euro-BTP Futures

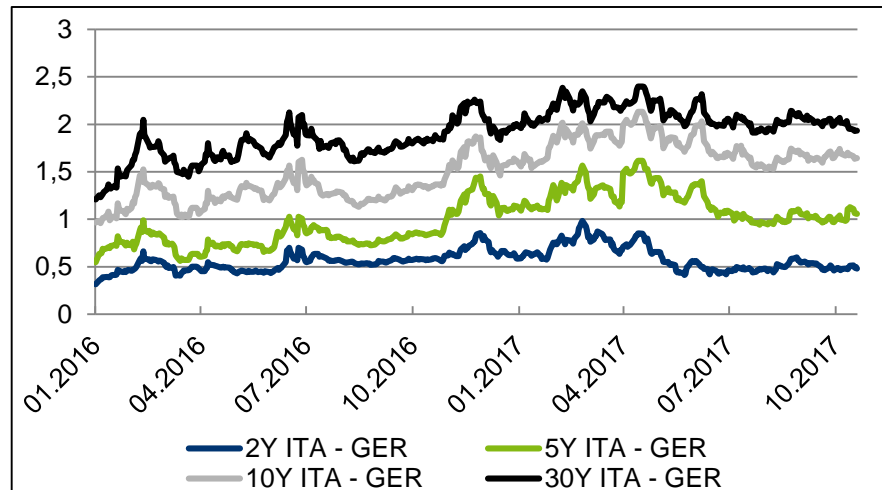
Outright options and directional trading strategies with call and put spreads can mitigate the negative impact of unfavourable price developments in the underlying fixed income futures and cash bond markets.

Hedge risks from government bond issuances

- The Republic of Italy auctions off Italian government debt in regular auctions
- Options can mitigate the price risks when bonds are auctioned, or can be used to lay off bond positions in the secondary market

Enhance returns with option based strategies

	Position	MktPx	CostPx	Unit Delta	Unit Gamma	Unit Vega
Clear Filters						
[-] Portfolio Totals						
Covered Call						
-IKH8 Comdty	0	132.35	133.00	1.00		
-IKH8C 133	100	1.895	1.895	-.56	.14	.32
-IKZ7 Comdty	0	134.67	134.77	1.00		
-IKZ7C 135	-100	.750	1.180	.45	.23	.20



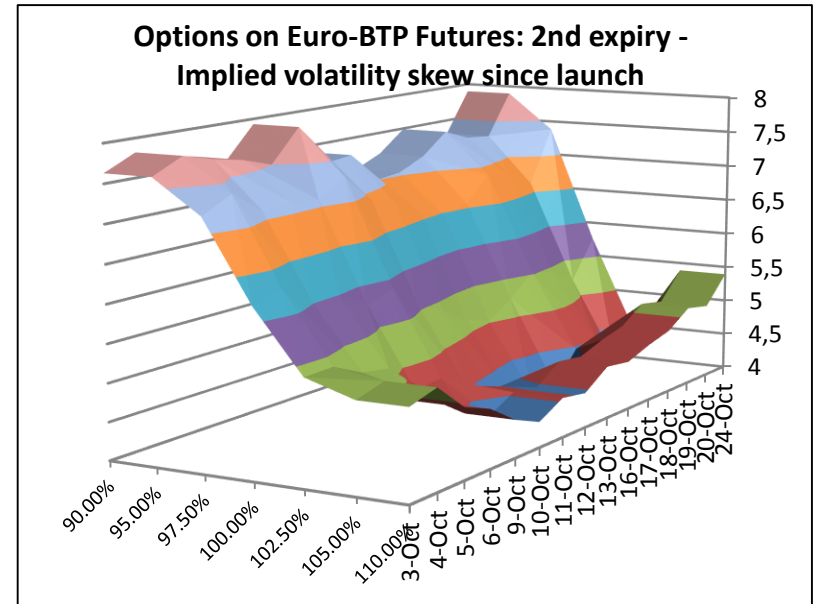
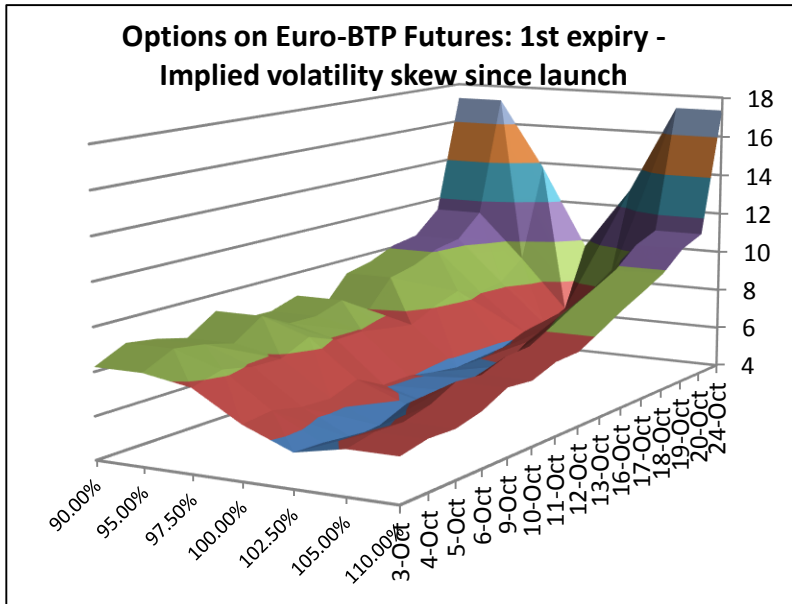
Yield enhancement

- Investors express market views on fixed income futures and cash bond markets with calls, puts and directional spreads.
- Covered call writing on bond and futures portfolios is commonly pursued for yield enhancement.

Spread ITA - GER: Generic bond yields (since 2016)

- Explore spreads between Italian (BTP) and German (Bund) government bond yield curves, as in the example of Euro-Bund versus BTP-bonds.
- Use inter-product spread trading in price and in volatility terms.

Utilize implied volatility



Systematic short volatility

improve returns in times of range bound prices, for example around a core portfolio of bonds and futures

Volatility sensitive strategies

Strategies such as butterflies and condors can help pinpoint price developments and take advantage of skew

Volatility arbitrage between listed fixed income options and OTC swaptions

Institutional investors active in swaptions and swaptions dealers mostly look at term structure and skew to Euro-BTP options volatility to test sensitivities and potentially exploit misbalances.

Wholesale Offering

The Eurex Euro-BTP Futures and Options can also be traded outside the order book on a bilateral basis, and subsequently booked to Eurex Clearing through the use of our Eurex Trade Entry Services.

Block Trading

Members are able to enter bilaterally agreed off-book transactions into the trading and clearing system. Registered off-book trades are then automatically cleared like regular exchange transactions. The Block Trade Entry facility is fully electronic and integrated into members' processes (the exchange defines a minimum number of contracts for a Block Trade – see below).

Basis Trading

Basis trading can also be facilitated by the Exchange for Physicals (EFP) and Exchange for Swaps (EFS) functionalities.

Minimum Entry Size for Block Trades

250 contracts for FBTP and 100 contracts for FBTS, FBTM and OBTP. There are no minimum entry size restrictions for EFP or EFS.

Further Information

Product Information

For further info on Eurex government bond products >

<http://www.eurexchange.com/exchange-en/products/int/fix/government-bonds/>

Publications/ Webinars

- **Euro-BTP Futures Factsheet >**
http://www.eurexchange.com/blob/115624/3aa074022f1b3cc8473c9aff372dff9/data/factsheet_eurex_euro_btp_futures_on_italian_government_bonds.pdf
- **Eurex Mid-Term Euro-BTP Futures Circular >**
<https://www.eurexchange.com/exchange-en/resources/circulars/Mid-Term-Euro-BTP-Futures--Introduction-of-Futures-Contracts-on-Mid-Term-Italian-Government-Bonds/143112>
- **Eurex Short-Term Euro-BTP Futures Circular >**
<https://www.eurexchange.com/exchange-en/resources/circulars/Short-Term-Euro-BTP-Futures--Introduction-of-Futures-Contracts-on-Short-Term-Italian-Government-Bonds/156948>

Vendor Codes

FBTP:	Bloomberg: IKA cmdty	ThomsonReuters: <0#FBTP:>	interactive data: FBTPmy
FBTS:	Bloomberg: BTSA cmdty	ThomsonReuters: <0#FBTS:>	interactive data: FBTSmy
FBTM:	Bloomberg: MFBA Comdty	ThomsonReuters: <0#FBTM:>	interactive data: FBTMmy

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