

# Eurex Exchange: Index Total Return Futures (TRF)

## Listed solution for implied equity repo trading via EURO STOXX 50® Index Total Return Futures (TESX)

Index Total Return Futures (TRF) are designed to offer a listed solution for trading the implied equity repo rate. Index TRFs aim to replicate the payoff profile of an Equity Index Total Return Swap (TRS) in a cost efficient way. The first TRF product launch will be the EURO STOXX 50® Index Total Return Futures (Product ID: TESX). This future will allow to:

- Provide cost-efficient access to the total returns of Europe's benchmark blue chip index whilst hedging the implied equity repo rate.
- Mitigate capital costs and collateral usage and the envisaged bilateral margining charges for non-cleared derivatives.
- Benefit from mitigation of counterparty risk with central clearing and margin offsets with listed equity index products.

### Key benefits

- Fully fungible product aiming to provide cost-efficient access to the payoff profile analogous to EURO STOXX 50® Index Total Return Swaps.
- Uses standardized trading convention – TRFs trade as a Spread expressed in basis points (+/-).
- Approximately 10 years exposure available via a single TRF product allowing single trades and calendar spreads.
- Price discovery and liquidity provided by market makers via the Eurex T7 trading system.
- Offsetting margin effects for Index Total Return Futures and Dividend Derivatives within the Listed Equity (Index) Derivatives Liquidation Group (PEQ01).

### How they work

- Daily cash-flow structure with distributions and funding realised daily via the TRFs variation margin.
- TRF executed in spread in basis points via the order book or Trade Entry Services is automatically converted to determine the futures price in index points within T7 system.
- Order entry and execution is based on the TRF Spread which is determined by the implied repo rate.

- Order book and off-book trading within the Eurex T7 trading system via two trade types:
  - Trade at Index Close (TAIC) with an equity strike level based on index close (e.g. EURO STOXX 50® Close).
  - Trade at Market (TAM) based on custom-defined equity strike level provided by the investor.

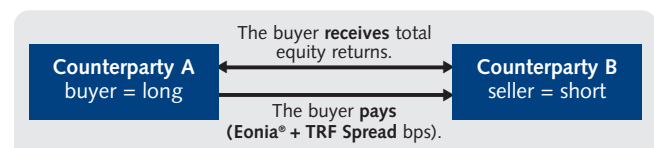
### TRF versus TRS

- The new TRF contracts aim to replicate the payoff profile of an equity index TRS:

(Equity performance + distributions) vs. (funding + TRF Spread)

-> Quoted TRF Spread ≈  
equity performance + distributions – funding

- TRF contracts will represent the theoretical exposure to the underlying index (i.e. its component basket) at trade date assuming holding to expiry.
- The holder of a long position will additionally receive the distributions associated with holding the cash basket, against which they will pay the financing associated with this purchase.
- The financing cost of will be made up by the overnight benchmark/funding rate (Eonia®) and additionally the traded **TRF Spread**. This spread represents the additional repo rate required by the seller over Eonia® rate to expiry.



- The payoff TRS structure comparison with the structure for Total Return Futures is:

Long payoff = [final equity + distributions – strike × funding rate × (ACT/360)] – strike × [1 + spread × (ACT/360)]

— "Daily cash flows" of TRF (daily distributions and funding) in the daily P/L

— Equivalent of "traded futures price" for TRF

## Contract specifications

EURO STOXX 50® Total Return Futures	
Product ID	TESX
Underlying indexes	EURO STOXX 50® Index (SX5E), EURO STOXX 50® Distribution Point Index (SX5EDD), Euro OverNight Index Average (EONIA®)
Contract multiplier	EUR 10.00 per index point
Quotation TRF Spread (basis points)	TRF Spread as annualized rate expressed in basis points with one decimal (+/-/0)
Minimum TRF Spread change	+/- 0.5 basis points (1 basis point = 0.0001)
Trading vs. clearing notation	The TRF Spread in basis points (" <b>trading notation</b> ") will be converted by the T7 trading system into the TRF futures price expressed in index points (" <b>clearing notation</b> "). The off-book (TES trades), on-exchange orders and quotes are entered and maintained in the T7 trading system exclusively in trading notation. Once executed, the TRF Spread is converted into clearing notation before it is sent to the C7 clearing system.
Trade types	<ul style="list-style-type: none"> <li>• Trade at Index Close ("TAIC") with an index level based on the daily EURO STOXX 50® Index close.</li> <li>• Trade at Market ("TAM") with a custom-defined index level.</li> </ul>
Accrued distributions & accrued funding (index points)	The distribution and funding rate payments will be accumulated from the TESX product launch and added to the TRF futures price in index points. The daily changes in distributions and funding payments are paid out via variation margin.
Contract months	9 years and 11 months: the 21 nearest quarterly months as well as up to the next 5 succeeding year-end months.
Settlement	Cash settlement, due on the first exchange trading day after final settlement day.
Daily Settlement TRF Spread (basis points)	Used to calculate the daily settlement price and determined as follows: <ul style="list-style-type: none"> <li>• The Daily Settlement TRF Spread shall be based on the TRF Spread traded via the closing auction between 17:25 – 17:30 CET.</li> <li>• Should no trades be executed in the closing auction, then the Daily Settlement TRF Spread will be determined based on the average bid-ask spread of the respective contract month.</li> <li>• Should no price be determined according to the aforementioned procedure, the Daily Settlement TRF Spread shall be determined based on a theoretic (fair) TRF Spread for the respective contract.</li> </ul>
Daily settlement price (index points)	Established on the current exchange trading day based the following components: Close SX5E, Daily Settlement TRF Spread, accrued distributions and accrued funding which have been accumulated from the product launch until the current date.
Final settlement day	The third Friday of each contract month, if this is an exchange trading day at the Eurex Exchanges, otherwise the exchange trading day immediately preceding that day.
Last trading day	The exchange trading day at the Eurex Exchanges immediately preceding the expiration day.
Final settlement price (index points)	Established on expiry day and it is based the following components: Final settlement price of all EURO STOXX 50® Index Futures (FESX), accrued distributions and accrued funding from the product launch until the expiry date.
Vendor product codes	Bloomberg: VHOA <Index> Reuters: 0#TESX:

For more information please see [Eurex circular 099/2016](#), [024/2017](#), [069/2017](#) and [Eurex Clearing circular 157/2016](#).

ARBN Number: Eurex Frankfurt AG ARBN 100 999 764

Neither Eurex Frankfurt AG (Eurex), nor its servants nor agents, is responsible for any errors or omissions contained in this publication which is published for information only and shall not constitute an investment advice. Any information herein is not intended for solicitation purposes but only for the use of general information. Eurex offers services directly to members of the Eurex market. Those wishing to trade in any products available on the Eurex market or to offer and sell any such products to others should consider both their legal and regulatory position in the relevant jurisdiction and the risks associated with such products before doing so.