

## Euronext Derivatives

# EURONEXT TOTAL RETURN FUTURE ON THE CAC 40 INDEX

### What is a Total Return Future on the CAC 40® Index?

Euronext's Total Return Future on the CAC 40 is a listed solution to trade total return swaps, based on the benchmark CAC 40 Index.

### Who are Total Return Futures on the CAC 40® Index for?

Traders who want to gain exposure to the implied equity repo rate on the CAC 40 Index, while trading on-exchange and benefiting from transparency and central clearing.

### Why use Total Return Futures?

They provide a solution to the increased capital requirements arising from regulatory changes. They allow investors to benefit from margin efficiencies while trading through the centralised order book.

### What is a total return future?

A total return future is a listed contract which replicates the economics of a total return swap. Being traded on-exchange, the contract offers centralised order book and central clearing. It is a solution to the increased capital requirements, allowing new investors to access implied equity repo as a new asset class.

Euronext's Total Return Future (TRF) on the CAC 40® Index offers investors a listed solution to access implied equity repo. This new future offers multiple advantages to market participants:

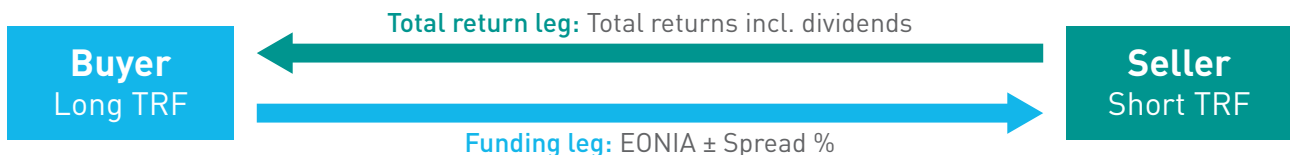
- Positive impact on capital requirements: the Total Return Future on CAC 40 is an answer to the increased capital requirements when trading OTC transactions
- Strong margin offsets when trading Euronext futures: investors trading the Total Return future on CAC 40 will benefit from margin efficiencies
- Transparency and accessibility: thanks to a centralised order book and central clearing, new investors will be able to access the implied repo market.

### Features of the Total Return Future on the CAC 40 Index

- The buyer benefits from the returns generated from the CAC 40 Index performance, including its ordinary dividend distributions
- In exchange for this, the buyer pays an interest rate which corresponds to the risk-free rate, plus a basis which corresponds to the lending rate.

Euronext's Total Return Future on the CAC 40 Index enables investors to gain exposure to the implied equity repo rate. In other words, it represents the price for going short a security.

FIGURE 1: TOTAL RETURN FUTURE ON THE CAC 40 INDEX

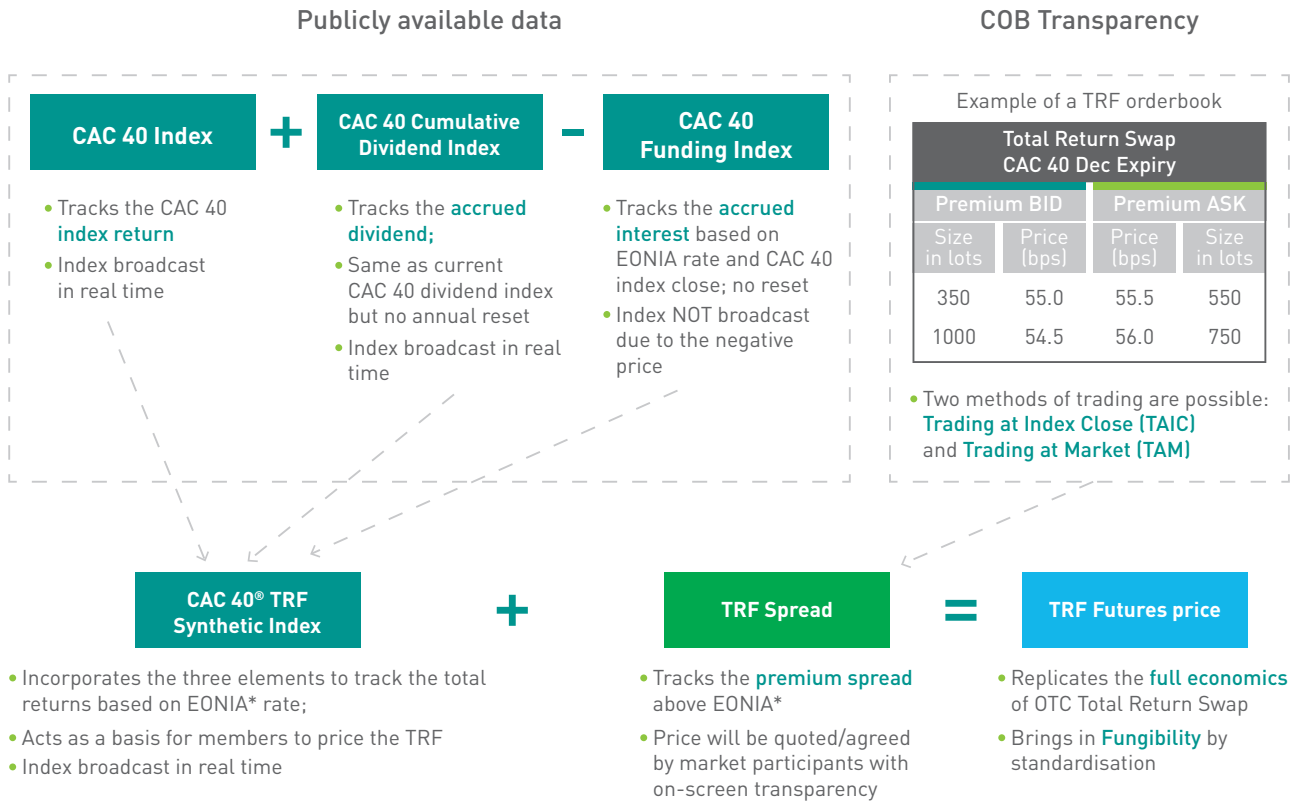


## Make-up of a Total Return Future

The basic economics of a Total Return Futures contract include four elements, where the **Synthetic Index price** is publicly available and the **Total Return Future Spread** is quoted/agreed by market participants, with on-screen transparency.

When all the elements at the close are known, the daily settlement price of the Total Return Future on CAC 40 will correspond to the CAC 40 Index level, the accrued dividends and the accrued funding at the close, plus the traded basis converted into index points as described below.

**FIGURE 2: MAKE-UP OF THE TOTAL RETURN FUTURE ON THE CAC 40**



## How is the Total Return Future on the CAC 40 index traded?

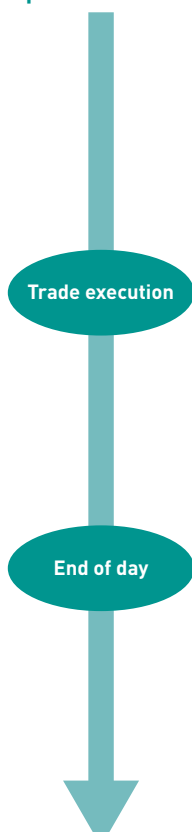
There are two ways of trading the Total Return Future on CAC 40: Trading at Index Close (TAIC) or Trading at Market (TAM).

**TABLE 1: TWO WAYS TO TRADE THE TOTAL RETURN FUTURE ON CAC 40**

	A. Trading At Index Close (TAIC)	B. Trading At Market (TAM)
Trading facility	Via Central Order Book & Wholesale Facilities	Via Wholesale Facilities only
Order entry	TRF Spread in bps, e.g. 50 bps	TRF Futures price in index points, e.g. 5,739 points
Trade price	Final futures price is known at the end of the day (after the index close is known)	Final futures price is known at the time of trading

\*EONIA: Euro OverNight Index Average

## Example of a TAIC Trade



Total Return Futures CAC 40 Dec Expiry			
Premium BID		Premium ASK	
Size in lots	Price (bps)	Price (bps)	Size in lots
300	50.0	50.0	300
420	49.5	50.5	250

Buyer ↔ ↔ Seller

**On 20 Aug 2018, the equilibrium in the order book generates one transaction:**  
300 lots of CAC TRF Dec-18 Expiry are traded at 50.0 bps; Trading mode: Trading at Index Close (TAIC)

Trade Info	
Trade date	20/08/2018
Traded Spread (bps)	50.0 bps
Traded Quantity	300 lots
Expiry date (T)	21/12/2018

**At the end of day, final futures price will be calculated based on CAC Synthetic Index Close:**  
300 lots of CAC TRF futures Dec-18 Expiry will be delivered at the price of 5,739.67

Final futures price calculation	
CAC Index closing at 20/08/2018 (1)	5,370.14
Cumul. Dividend index close (2)	323.09
Funding index closing (3)	-30.91
Basis traded (4)	15.53
<b>Traded futures price = (1) + (2) - (3) + (4)</b>	<b>5,739.67</b>

## Margin offsets

The Total Return Future on the CAC 40 Index will be cleared by LCH SA. Participants will consequently benefit from:

- mitigation of counterparty risk due to Central Counterparty Clearing
- margin offsets across listed equity index products.

### Illustration of most frequently traded strategy:

When going **long the TRF on CAC 40<sup>®</sup> Index** and **short the CAC 40<sup>®</sup> Index Future**, investors will benefit from margin savings up to 92%\* as follows:

Portfolio	Individual Initial Margins	Total Margin** before offset	Final Margin** before offset	Offset** between 2 underlyings
Long TRF CAC 40 <sup>®</sup>	5.05% or €276	5.01% or €537	0.38% or €44	up to 92%
Short CAC 40 <sup>®</sup> Future	4.96% or €261			

Below are multiple examples of margin savings across frequently used portfolios:

Product Long / Product Short	Initial Margin with offset applied**	Offset effect**
<b>TRF CAC 40<sup>®</sup> versus Index Futures</b>		
TRF CAC 40 <sup>®</sup> / CAC 40 <sup>®</sup> Future	0.38%	up to 92%
TRF CAC 40 <sup>®</sup> / AEX <sup>®</sup> Future	2.19%	up to 57%
<b>TRF CAC 40<sup>®</sup> versus Single Stock Futures (SSF)</b>		
TRF CAC 40 <sup>®</sup> / Total SSF	4.10%	up to 50%
TRF CAC 40 <sup>®</sup> / Total SSF + BNP Paribas SSF + Unicredit SSF	3.38%	up to 63%
<b>TRF CAC 40<sup>®</sup> versus Index Dividend Futures</b>		
TRF CAC 40 <sup>®</sup> / CAC 40 <sup>®</sup> Dividend Future	4.01%	up to 30%

\*92% is the offset on the long/short strategy: as required by EMIR where portfolio margining covers multiple instruments, the amount of margin reductions will comply with the EMIR regulatory cap set at 80% of the sum of the margins for each product calculated on an individual basis.

\*\* The margin parameters are updated on a regular basis and can be found at [www.lch.com/risk-collateral-management/risk-notice](http://www.lch.com/risk-collateral-management/risk-notice). The ones used in these examples were estimated as of June 2017 and are provided for illustration purposes only. Please refer to the LCH website [www.lch.com](http://www.lch.com) for the full methodology and application rules.

## Contract Specifications

CONTRACT	Total Return Future (TRF) on CAC 40® Index
CONTRACT CODE	FCS
EURONEXT DERIVATIVE MARKET	Paris
UNDERLYING INDICES	CAC 40® Index, CAC 40® Cumulative Dividend Index and CAC 40® Funding Index (combined as CAC 40® Synthetic Dividend Index)
CONTRACT MULTIPLIER (CONTRACT SIZE)	€10 per index point (e.g. value €41,000 at 4,100.0)
MINIMUM TRF SPREAD	+/- 0.5 bps (1 basis point = 0.0001)
QUOTATION TRF SPREAD (BASIS POINTS)	TRF spread as annualised rate expressed in basis points with one decimal (+/-/0)
ORDER TYPES	Trade at Index Close (TAIC) with an index level based on the daily CAC 40® Index close. Trade at Market (TAM) with a custom-defined index level.
TRADING HOURS	Central Order Book (TAIC): 09:30 - 17:30 CET Large-in-Scale Facility (TAIC & TAM): 09:30 - 18:30 CET
ACCRUED DISTRIBUTIONS & ACCRUED FUNDING (INDEX POINTS)	The distribution and funding rate payments will be accumulated from the launch of the Total Return Future and added to the TRF futures price in index points. The daily changes in distributions and funding payments are paid out via variation margin.
WHOLESALE SERVICE	Large-in-Scale
MATURITIES/TENOR	Up to five years and 3 months – the 21 nearest quarterly months of the March, June, September and December cycle.
EXPIRY DATE	The 3rd Friday of the expiry month in the Mar, Jun, Sep, Dec cycle. If the third Friday is not an exchange trading day, expiry will be on the trading day immediately preceding that day.
TIME CONVENTION	Actual/360
DAILY SETTLEMENT TRF SPREAD (BASIS POINTS)	Daily Settlement Basis in basis points (bps) for each maturity is decided as follows: <ul style="list-style-type: none"> <li>▪ VWAP of all trades in last 30 mins;</li> <li>▪ if no trade during this time period, then the mid-BBO at the closing time is used;</li> <li>▪ if no BBO available then the previous Daily Settlement Basis is used.</li> </ul>
DAILY SETTLEMENT PRICE (INDEX POINTS)	Established on the current exchange trading day based on the following components: Close CAC, Daily Settlement Basis, Accumulated Dividend Index and Accumulated Funding Index.
SETTLEMENT	Cash settlement, due on the first exchange trading day after final settlement day
LAST TRADING DAY	The Euronext exchange trading day immediately preceding the expiration day
FINAL SETTLEMENT PRICE (INDEX POINTS)	Established on expiry day and based on the following components: final settlement price of all CAC 40® Index Futures (CAC), accrued distributions and accrued funding from the product launch until the expiry date.
MINIMUM SIZE FOR LARGE-IN-SCALE TRADE	10 lots
VENDOR CODES	Bloomberg: TRCA <Index> Reuters: 0#FSC

## Find out more

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### TRANSACTION FEE

Trading plus Clearing fee:	€0.9 per lot
Settlement fee:	€0.9 per lot

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