

## Eris Interest Rate Swap Futures: 7Y Standard Contract Specifications

<b>Trading Hours</b>	Regular Trading Hours (RTH): Monday – Friday; 7:00 am to 5:00 pm Eastern Time
<b>Contract Structure</b>	\$100,000 notional principal whose value is based upon the difference between a stream of semi-annual fixed interest payments and a stream of quarterly floating interest payments based on 3 month US Dollar LIBOR, over a term to maturity.
<b>Underlying Swap Tenor</b>	7 Years
<b>Contract Short Name</b>	7Y Stnd <Month> <YYYY-YYYY>, where the <Month> will be the first three characters of the month of the Effective Date and <YYYY-YYYY> will represent the year of the Effective Date and the year of the Maturity Date  For example, the 7Y Standard with an Effective Date in September 2014 and a Maturity Date in September 2021 will have a Contract Short Name of “7Y Stnd Sep 2014-2021”
<b>Fixed Rate</b>	Pre-determined rate set by Eris Exchange which will remain static throughout the life of the contract <ul style="list-style-type: none"> <li>• Determined just prior to quarterly listing</li> <li>• Multiple fixed rates may be pre-determined</li> </ul>
<b>Contract Size</b>	1 Contract = 1 lot = \$100,000 face
<b>Trading Conventions</b>	Buy = Pay Fixed Sell = Receive Fixed
<b>Swap Futures Leg Conventions</b>	<p>Fixed Leg</p> <ul style="list-style-type: none"> <li>• Reset Frequency                      Semi-Annual</li> <li>• Day Count Convention                30/360</li> <li>• Currency                                    USD</li> <li>• Holiday Calendar(s)                  New York, London</li> <li>• Business Day Convention            Modified Following with adjustment to period end dates</li> </ul> <p>Floating Leg</p> <ul style="list-style-type: none"> <li>• Reset Frequency                      Quarterly</li> <li>• Day Count Convention                Actual/360</li> <li>• Currency                                    USD</li> <li>• Holiday Calendar(s)                  New York, London</li> <li>• Business Day Convention            Modified Following with adjustment to period end dates</li> </ul>

<b>Effective Dates</b>	<p>Quarterly IMM Dates (3<sup>rd</sup> Wednesday of each March, June, September, December)</p> <p>Monthly dates as provided by the Exchange in an Exchange Advisory.</p>
<b>Cash Flow Alignment Date (“CFAD”)</b>	<p>The date used for aligning all fixed and floating Reset Dates, and for determination of the Maturity Date.</p> <p>CFAD can be derived by adding 7 Years to the Effective Date.</p> <p>For example, an Eris Interest Rate Swap Future with an Effective Date of 09/19/2012 and a tenor of 7 years implies a Cash Flow Alignment Date of 09/19/2019. Note that the Cash Flow Alignment Date may fall on any calendar day, including weekends and holidays. The CFAD is used to determine the Maturity Date, but the two terms are distinct, as the Maturity Date must fall on a valid business day from the joint holiday calendar.</p>
<b>Maturity Date</b>	<p>The final date to which fixed and floating amounts accrue. The last date of the contract.</p> <p>Maturity Date is determined by applying the Modified Following rule to the Cash Flow Alignment Date. If the Cash Flow Alignment Date is a non-business day in either NY or London, go forward to the next day that is a business day in both NY and London. If the next valid business day is in the following month, the preceding valid business day on both the NY and London holiday calendars will be the Maturity Date.</p> <p>Eris PAI™ accrues up to and including the Maturity Date.</p> <p>The Maturity Date may also be referred to as Termination Date.</p>
<b>Underlying Tenor</b>	<p>The duration of time from the Effective Date to the Cash Flow Alignment Date.</p>
<b>Remaining Tenor</b>	<p>The duration of time from today to the Cash Flow Alignment Date.</p>
<b>Reset Dates</b>	<p>Dates utilized to determine fixed and floating amounts throughout the life of the Contract. Reset Dates define the beginning and end of fixed and floating interest accrual periods. Floating Rate Reset Dates facilitate the determination of the LIBOR Fixing Dates.</p> <p>The Cash Flow Alignment Date will be used as the basis for determining Reset Dates. Each Reset Date is subject to</p>

	adjustment based on Modified Following convention. <ul style="list-style-type: none"> <li>For example, if the CFAD is 09/19/2019, the Reset Dates will be on the 19<sup>th</sup> of December, March, June and September, subject to the Modified Following convention.</li> </ul>
<b>Last Trading Day</b>	The last day on which the Contract can be traded is the NY business day preceding the Maturity Date.
<b>First LIBOR Fixing Date</b>	2 London business days prior to the Effective Date.
<b>Other LIBOR Fixing Dates</b>	For all periods other than the first floating rate period, the LIBOR Fixing Date is 2 London business days prior to each Reset Date.
<b>Floating Rate Index</b>	3 Month USD LIBOR announced by the ICE Benchmark Administration Limited (IBA).
<b>Daily Settlement Price (Futures-Style Price)</b>	<p>Eris Interest Rate Swap Futures are priced on a basis of 100, similar to market practice for bonds and other futures contracts.</p> <p>The settlement value for each Contract is defined as:</p> $S_t = 100 + A_t + B_t - C_t$ <p> <math>S_t</math> = settlement price at time t  <math>A_t</math> = net present value of the future cash flows at time t, based on OIS discounting  <math>B_t</math> = value of the historical fixed and floating amounts since contract inception  <math>C_t</math> = Eris Price Alignment Interest (or Eris PAI™).         </p> <p>Eris Exchange and CME Clearing calculate Daily Settlement Price to 4 decimals of precision (e.g., 100.1234).</p> <p>Eris PAI™ is a cumulative value calculated daily by applying the overnight fed funds effective rate to the contract's NPV, using an Actual/360 daycount convention. Eris PAI™ will start accruing on the first listing date.</p>
<b>Final Settlement Price</b>	$S_{final} = 100 + B_{final} - C_{final}$ <p> <math>S_{final}</math> = Settlement price at maturity  <math>B_{final}</math> = Historical fixed and floating amounts since contract inception through maturity  <math>C_{final}</math> = Eris PAI™, at maturity         </p>
<b>Quoting Convention</b>	<p>Net Present Value (NPV) per Contract will be used for trade execution.</p> <p>NPV is expressed in per contract terms for the Buyer (fixed rate</p>

	<p>payer).</p> <p>Each Swap Future negotiated in NPV terms has an implicit futures-style trade price of</p> $\text{Trade Price} = 100 + A_{\text{negotiated}} + B_t - C_t$ <p>where <math>A_{\text{negotiated}}</math> is the NPV per Contract agreed upon between the counterparties (divided by 1,000 to normalize units to \$100 face amount), <math>B_t</math> is the value of the historical fixed and floating amounts, and <math>C_t</math> is Eris PAI™ at time t.</p> <p>The B and C components are calculated and applied by the Exchange, and are not subject to negotiation by the counterparties.</p> <p>Eris Exchange calculates Eris PAI™ for all trades executed between 8:30am and 5:00pm ET during RTH using the overnight fed funds effective rate that was published on the morning of the trade date. For all other trades, Eris PAI™ is calculated using the overnight fed funds rate that was published on the morning of the previous trade date.</p> <p>The NPV per Contract can be negotiated in the following increments/tick sizes:</p> <ul style="list-style-type: none"> <li>• \$1 for Contracts where the lesser of Remaining Tenor/Underlying Tenor is less than two years.</li> <li>• \$2 for Contracts where the lesser of Remaining Tenor/Underlying Tenor is greater than or equal to 2 years and less than 4 years.</li> <li>• \$5 for Contracts where the lesser of Remaining Tenor/Underlying Tenor is greater than or equal to 4 years and less than 7 years.</li> <li>• \$10 for Contracts where the lesser of Remaining Tenor/Underlying Tenor is greater than or equal to 7 years and less than 20 years.</li> </ul>
<p><b>Block Trades</b></p>	<p>Eris Interest Rate Swap Futures are eligible to be traded as privately negotiated, off-exchange Block Trades and reported to Eris Exchange.</p> <p>Block Trades may be executed at any time, including times in which the public auction market is closed.</p> <p>Block Trades must be executed and reported pursuant to Rule 601 in the Eris Exchange Rulebook.</p> <p>Current block trade thresholds are as follows and are subject to change:</p> <ul style="list-style-type: none"> <li>• A multiple leg Block Trade is permitted as long as the sum notional of the legs that are transacted</li> </ul>

	<p>simultaneously meets the minimum quantity threshold for the leg with the shortest Remaining Tenor.</p> <table border="1"> <thead> <tr> <th></th> <th colspan="2">Minimum Block Size</th> </tr> <tr> <th>Remaining Tenor</th> <th>Trading Hours: RTH</th> <th>Trading Hours: OTH</th> </tr> </thead> <tbody> <tr> <td>Less than 5 years</td> <td>\$10mm notional 100 contracts</td> <td>\$1.0mm notional 10 contracts</td> </tr> <tr> <td>5 years or more</td> <td>\$10mm notional 100 contracts</td> <td>\$0.5mm notional 5 contracts</td> </tr> </tbody> </table> <p>Eris Exchange will publicly report all Block Trades (instrument, price, quantity) immediately upon successful receipt of the trade details from the party reporting the trade.</p>		Minimum Block Size		Remaining Tenor	Trading Hours: RTH	Trading Hours: OTH	Less than 5 years	\$10mm notional 100 contracts	\$1.0mm notional 10 contracts	5 years or more	\$10mm notional 100 contracts	\$0.5mm notional 5 contracts
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<b>Exchange of Derivatives for Related Positions</b>	<p>Eris Interest Rate Swap Futures are eligible to be traded as privately negotiated, off-exchange Exchange of Derivatives for Related Positions (EDRPs) and reported to Eris Exchange.</p> <p>EDRP's may be executed at any time, including times in which the public auction market is closed.</p> <p>EDRPs must be executed pursuant to Rule 602 in the Eris Exchange Rulebook.</p> <p>There are no minimum quantity thresholds required for EDRP's.</p> <p>Eris Exchange does not report EDRP's publicly during the trading day; however, activity from EDRP's is reflected in the Exchange volume and open interest values published at the end of each trading day.</p>												
<b>Ticker Symbol Convention</b>	<p>Maturity Code (Period Code) will be YYYYMMDD</p> <p>Product Code: ZC9107; initial contract fixed rate Product Code: ZC9207; secondary contract fixed rate</p> <p>For example, the 7Y contract with Product Code of ZC9107 and Maturity Date of 12/19/19 will have a ticker symbol of ZC910720191219</p>												
<b>Listed Spreads</b>	<p>Listed Spreads (or Discrete Spreads), composed of Standard Contracts, may be traded using the SwapBook Discrete Spread functionality</p>												

Certain elements of the contract design and pricing construct are patent-pending.

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