

## Eris Interest Rate Swap Futures: Flex Contract Specifications

<b>Trading Hours</b>	Regular Trading Hours (RTH): Monday – Friday; 7:00 am to 4:30 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>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><b>Fixed Leg</b></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><b>Floating Leg</b></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 Date</b>	<p>The first date from which fixed and floating interest amounts accrue.</p> <ul style="list-style-type: none"> <li>• To determine the Effective Date of a spot-starting Eris Interest Rate Swap Future, move two business days forward from the trade date in the London calendar, and then check the NY Fed Calendar. If that day is a valid NY business day, then that is the Effective Date. If that day is a NY holiday, then continue to move forward to the next day that is a valid business day on both the LN and NY calendars.</li> </ul>
<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>The Cash Flow Alignment Date can be defined as any date up to 30 years following the Effective Date. CFAD can be derived,</p>

	<p>if necessary, by adding the tenor to the Effective Date. For example, an Eris Interest Rate Swap Future with an Effective Date of 12/30/2010 and a tenor of three years implies a Cash Flow Alignment Date of 12/30/2013. 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 the 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. Eris PAITM accrues up to and including the Maturity Date.</p> <p>The Maturity Date may also be referred to as Termination Date.</p>
<b>Trading Period Type</b>	<p>Spot:</p> <ul style="list-style-type: none"> <li>• A new contract or one created on a prior date, in which the Effective Date is the same as a spot starting contract traded on that day.</li> </ul> <p>Forward:</p> <ul style="list-style-type: none"> <li>• A new contract or one created on a prior date, in which the Effective Date is after the Effective Date of a spot starting contract traded on that day. The maximum possible time between the Effective Date of a spot starting contract and the Effective Date of a forward starting contract is 10 years.</li> </ul> <p>Seasoned:</p> <ul style="list-style-type: none"> <li>• A new contract or one created on a prior date, in which the Effective Date is before the Effective Date of a spot starting contract traded on that day.</li> </ul> <p>The Ticker Symbol remains the same as it transitions throughout period types.</p>
<b>Underlying Tenor</b>	<p>The duration of time from the Effective Date to the Cash Flow Alignment Date.</p> <p>A Contract can have an Underlying Tenor as long dated as 30 years, with precision down to each valid business day.</p>

<b>Remaining Tenor</b>	<p>The duration of time from today to the Cash Flow Alignment Date.</p> <p>A Contract can have a Remaining Tenor as long dated as 40 years, with precision down to each valid business day.</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 adjustment based on Modified Following convention.</p> <ul style="list-style-type: none"> <li>For example, if the CFAD is 12/15/2030, the Reset Dates will be on the 15<sup>th</sup> of March, June, September and December, subject to the Modified Following convention.</li> </ul>
<b>Last Trading Day</b>	<p>The last day on which the Contract can be traded is the NY business day preceding the Maturity Date.</p>
<b>First LIBOR Fixing Date</b>	<p>For spot starting contracts, the first LIBOR Fixing Date is the trade date.</p> <p>For forward starting contracts, the first LIBOR Fixing Date is 2 London business days prior to the Effective Date.</p>
<b>Other LIBOR Fixing Date</b>	<p>For all periods other than the first floating rate period, the LIBOR Fixing Date is 2 London business days prior to each Reset Date.</p>
<b>Floating Rate Index: First Period</b>	<p>3 Month USD LIBOR for all contracts with standard first floating rate period (i.e., length of period is 3 months, adjusted for Modified Following).</p> <p>For both Spot Starting and Forward Starting Contracts with non-standard tenors, a short front stub period of less than 3 months may occur between the Effective Date and the first Reset Date. In these cases, the first LIBOR Fixing Rate is determined using linear interpolation based on the two LIBOR indices that surround the Stub Period on the first LIBOR Fixing Date.</p> <ul style="list-style-type: none"> <li>The following USD LIBOR indices will be used to determine the fixing rate for a stub period: Overnight, 1 Week, 1 Month, 2 Month and 3 Month.</li> <li>For example, the first LIBOR fixing rate for a contract with a stub period of 45 days will be interpolated between the 1 month and 2 month LIBOR rates.</li> </ul>

<b>Floating Rate Index: Subsequent Periods</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 day-count convention. Eris PAI™ will start accruing on the first trade 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 – Par Swap Futures</b>	<p>During the Forward and Spot Periods, market participants can trade Par Swap Futures by negotiating the par fixed rate for a given Effective Date and Cash Flow Alignment Date. Each Par Swap Future negotiated in fixed rate terms carries an implicit futures-style price of 100.0000.</p> <p>For Par Swap Futures the fixed rate can be negotiated in increments of one-tenth of one basis point, from 0.000% to 9.999%.</p>
<b>Quoting Convention – Off-Market Swap Futures</b>	<p>During the Spot, Forward and Seasoned periods of a given Contract, market participants can negotiate the Net Present Value (NPV) per Contract. NPV is expressed in per contract terms for the Buyer (fixed rate payer).</p> <p>Each Off-Market Swap Future negotiated in NPV terms has an implicit futures-style trade price of</p> $Trade\ Price = 100 + A_{negotiated} + B_t - C_t$

	<p>where <math>A_{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 <math>t</math>.</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 4:30pm 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> <li>• \$20 for Contracts where the lesser of Remaining Tenor/Underlying Tenor is greater than or equal to 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, except that Block Trades in Eris Flexes may not be executed from 4:30 pm to 5:00 pm Eastern Time on Business Days.</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 simultaneously meets the minimum quantity threshold for the leg with the shortest Remaining Tenor.</li> </ul> <table border="1" data-bbox="537 478 1373 724"> <thead> <tr> <th colspan="3">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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<p><b>Exchange of Derivatives for Related Positions</b></p>	<p>Eris Interest Rate Swap Futures are eligible to be traded as privately negotiated, off-exchange Exchange of Derivatives for Related Positions (EDRP's) 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>EDRP's 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>Product Family + Tenor + Maturity</p> <p>The first new trade for a given maturity date will be issued (by Eris Exchange systems) a ticker symbol comprised of Clearing Code 'Z(tenor category)0001', concatenated with the Period representing the maturity date in YYYYMMDD format.</p> <p>A contract's Tenor is defined as the difference between the contract's Effective Date and its Cash Flow Alignment Date.</p> <p>Tenor category are as follows:</p> <p>ZA = Tenors greater than zero and less than or equal to two years          ZB = Tenors greater than two years and less than or equal to five years          ZC = Tenors greater than five years and less than or equal to ten years          ZD = Tenors greater than ten years</p> <p>The first Contract that trades with a particular maturity is assigned Product Family Z(A)0001. The next Contract that trades with the same maturity, but with a different start date or coupon, is assigned Product Family Z(A)0002.</p> <p>For example, assume that the trade is a 10-year swap future initiated with an Effective Date of 20-Dec-2010, Maturity Date of 20-Dec-2020 and coupon of 0.710. Because the trade is the first to carry the maturity date 20-Dec-2020, the issued ticker symbol is ZC000120201220. The C denotes that this is in the 5+ to 10 years tenor category.</p> <p>Notwithstanding the above, for purposes of trade entry in BlockBox, a Flex Contract with the same Effective Date, Cash Flow Alignment Date and Fixed Rate as a Standard Contract will, by default, be filled as a Standard Contract. Similarly, SwapBook will not permit the creation of an order for a Flex Contract with the same Effective Date, Cash Flow Alignment Date and Fixed Rate as a Standard Contract.</p>
<b>Listed Spreads</b>	<p>Listed Spreads (or Discrete Spreads), composed of featured 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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