

# Eris PAI Dataset

This page describes Eris PAI (Price Alignment Interest) data available from CME DataMine.

This dataset provides historical settlements and related pricing components for Eris Swap Futures, a leading alternative to traditional OTC IRS now listed for trading by CME Group. Includes, historical cash flows, net present values (NPV) of future cash flows, interest on NPV, and price conversion data.

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## Dates Available

Eris PAI data is available from December 3, 2018 to present day.

### By File

File	Start Date	End Date
PAI Rate Top of Day	12/3/18	Present
PAI Rate Previous Day	12/3/18	Present

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## Sample Files

Dataset	Sample File
PAI Rate Top of Day	<a href="#">12/3/18</a>
PAI Rate Previous Day	<a href="#">12/3/18</a>

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## FAQ

### What format is the file delivered in?

Data is provided in .csv format (comma separated values).

### Are files compressed?

No, the files are not compressed into zip files.

### What Eris data is available on CME DataMine?

Historical Coupons (B), ErisPAI (C), PV01 and DV01 values are delivered daily.

### How many files are available per day?

Two files are available per day. They are the Top Day PAI and Previous Day PAI files.

**How far back do you maintain these records?**

These files go back to December 3, 2018.

**Do you have sample files available?**

Yes, see Sample Files section above.

**Are there any anomalies in the the data?**

There are no known anomalies.

**When are these files delivered?**

Top day PAI data will be available at approximately 7:50 am CST.

Previous day PAI data will be available at approximately 4:30pm CT (T-1).

**If I purchase daily updates of these datasets, will I get historical data as well?**

No. When an order is placed for daily updates of these datasets, the first file included will be generated for the start date of the subscription. However, files remain accessible for 30 days after purchase, enabling the customer to reference previous day's data.

**How is this data relevant for Eris swap futures?**

**Historical Coupons (B)** are the past accrued fixed and floating amounts and change every 3 months, beginning 3 months past the effective date.

**ErisPAI (C)**, Price Alignment Interest, is analogous to the interest payment that would be paid (or received) on the pledged collateral received in lieu of a positive mark to market (or collateral posted in lieu of a negative mark to market) for the equivalent collateralized OTC swap. PAI is the accumulated overnight interest on the previous days NPV of future cash flows calculated using the overnight Fed Funds rate at the start of each day.

**PV01** is the change in value given a one basis point (0.01%) change in the underlying fixed rate. This measure is necessary to determine the implied par rate equivalent of Eris swap futures trading quoted in Futures Price terms for comparison against other yield based products.

**DV01** is the change in value given a one basis point parallel shift in the forward curve used to determine portfolio risk and hedge ratios against other fixed income products

**How large are these files?**

The average file size is approximately 90KB.

**Are there any anomalies in the files?**

Yes, before July 12, 2019 columns BG-BM were not available in the dataset.

**How is the data structured?**

Col umn	Field	Description
A	Symbol	Contract symbol in Globex format
B	FinalSettlementPrice	Final settlement price as of most recently published settlement
C	EvaluationDate	Date the file was created
D	FirstTradeDate	Historical first trade date
E	ErisPAIDate	The date from which return on variation margin will start to accrue
F	EffectiveDate	The start date of the first accrual period.  Quarterly IMM Dates (3rd Wednesday of each March, June, September, December)
G	CashFlowAlignmentDate	The date used for aligning all fixed and floating Reset Dates, and for determination of the Maturity Date.  Effective Date + Tenor, unadjusted for holidays (CFAD)
H	MaturityDate	The final date to which fixed and floating amounts accrue. The last date of the contract.

I	NPV (A)	Net present value of the future cash flows, real-time A value
J	FixedNPV	The NPV (Net Present Value) for the fixed leg of the trade, calculated that day.
K	FloatingNPV	The NPV (Net Present Value) for the floating leg of the trade, calculated that day
L	Coupon (%)	Fixed coupon rate of the swap future
M	FairCoupon (%)	Shows the coupon rate that would result in a zero-NPV swap.
N	FixedPayment	Fixed Payment that occurs on the Evaluation Date.
O	FloatingPayment	Floating Payment that occurs on the Evaluation Date.
P	NextFixedPaymentDate	The date the next fixed payment will be made.
Q	NextFixedPaymentAmount	Next fixed payment amount (rate) based on coupon
R	PreviousFixingDate	The date the floating rate was set for the next floating payment
S	PreviousFixingRate	The rate set on the last reset date
T	NextFloatingPaymentDate	The date the next floating payment will be made.
U	NextFloatingPaymentAmount	Next floating payment amount
V	NextFixingDate	Next date of floating rate fixing
W	PreviousSettlementDate	The last business day a settlement price was calculated.
X	PreviousSettlementPrice	Settlement price calculated on Previous Settlement Date
Y	PreviousErisPAI	The Eris PAITM on the Previous Settlement Date.
Z	FedFundsDate	The date for which the fed funds date was published
AA	FedFundsRate (%)	The Fed Funds Rate published for the Fed Funds Date by the New York Federal reserve Bank used to calculate ErisPAI.
AB	AccrualDays	Number of days of accrued interest used in calculating ErisPAI

AC	DailyIncrementalErisPAI	This number represents the day over day ErisPAI value.
AD	AccruedCoupons (B)	This value represents accumulated fixed and floating amounts, B value
AE	ErisPAI (C)	Cumulative daily interest adjustment, C value
AF	SettlementPrice (100+A+B-C)	Unrounded settlement price
AG	RFQ NPV TickSize (\$)	N/A
AH	Nominal	Notional value of the contract
AI	ResetRateDescriptor	Description of Float Rate. Sent for float leg on aged or spot starting swap futures. Not sent for forward starting swap futures.
AJ	InterpolationFactor	Multiplier that when applied on longer rate results in previous fixing rate.
AK	HighTradePrice	N/A
AL	LowTradePrice	N/A
AM	LastTradePrice	N/A
AN	DailyContractVolume	N/A
AO	Tag55(T)	N/A
AP	Tag65(T)	N/A
AQ	Tag55(T+1)	N/A
AR	Tag65(T+1)	N/A
AS	LastTradeDate	Last Trade Date
AT	InitialSpeculatorMargin	Initial Speculator Margin
AU	SecondarySpeculatorMargin	Secondary Speculator Margin
AV	InitialHedgerMargin	Initial Hedger Margin

AW	SecondaryHedgerMargin	Secondary Hedger Margin
AZ	ExchangeSymbol (EX005)	Globex product code
AY	BloombergTicker	Bloomberg ticker code
AZ	FirstFixingDate	First date of floating rate fixing
BA	Category	N/A
BB	BenchmarkContractName	N/A
BC	PV01	The present value of a 1bp change in the fixed rate.
BD	DV01	Present value of one basis points change in value if yield curve shifts 1bp.
BE	ShortName	N/A
BF	EffectiveYearMonth	Effective year month
BG	UnpaidFixedAccrualStartDate	The starting date of the accrual period of the next fixed coupon, #NA for contracts where the current settlement date is prior to the contract's swap effective date.
BH	UnpaidFixedAccrual	The value of the next fixed coupon that has accrued to the present settlement date and therefore not yet settled as a payment
BI	UnpaidFloatingAccrualStartDate	The starting date of the accrual period of the next floating coupon, #NA for contracts where the current settlement date is prior to the contract's swap effective date
BJ	UnpaidFloatingAccrual	The value of the next floating coupon that has accrued to the present settlement date and therefore not yet settled as a payment
BK	NetUnpaidFixedFloatingAccrual	UnpaidFixedAccrual minus UnpaidFloatingAccrual
BL	NPV(A) lessNetUnpaidFixedFloatingAccrual	The NPV (A) minus the NetUnpaidFixedFloatingAccrual
BM	AccruedCoupons(B) plusNetUnpaidFixedFloatingAccrual	Past paid fixed and floating cash flows plus NetUnpaidFixedFloatingAccrual

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