



Using Charles River IMS to access ICE Continuous Evaluated Pricing (CEPTM)

Evaluated Bond Prices Across Multiple Asset Classes

Fixed income markets are quickly migrating from one-to-one transactions to a more robust, electronic, and automated process. The rapidly changing environment and expansion of trading venues and protocols means liquidity is increasingly fragmented and has led to a growing number of execution options and greater data complexity.

Increased market fragmentation has increased the complexity of fixed income order flow management and driven the need for vast amounts of pricing data to support fixed income trading decisions and to determine efficient execution strategies.

These developments put a premium on timely and accurate pricing data. ICE helps provide continuous, independent evaluated pricing for traders and portfolio managers directly within the Charles River Investment Management Solution (Charles River IMS). This can provide critical decision support at the time of trade and helps fixed income managers discover potential trading opportunities.

ICE's Continuous Evaluated Pricing (**CEP**) provides high quality continuous, evaluated pricing for approximately 2.5 million fixed income instruments globally from liquid to less liquid and hard-to-value instruments across Sovereigns, Investment Grade and High Yield Corporates, Emerging Markets and Money market instruments.

ICE's evaluation process is driven by market data, including axes, trades, bids, quotes and various forms of market color from buy-side, sell-side sources, electronic trading platforms and public trade reporting systems.

ICE combines extensive content, technology and algorithms, and experienced evaluators and data science teams to systematically capture, analyses, validate and apply market data to evaluate 2.5 million fixed income instruments.

Benefits of Accessing CEP in Charles River IMS



Pre-Trade Price Transparency and Discovery

The flow of pre-trade pricing information is changing. Traditional sources of pre-trade transparency focus on a narrowing segment of the fixed income market. New trading venues are providing alternative pricing sources, but the anonymity these venues provide to their participants may leave pre-trade participants seeking additional information about the quality of the prices they see. The trading community increasingly looks for pricing information from recognized independent sources to help them quickly identify the best option for each trade. ICE's CEP helps provide investment managers with the tools to assess quote quality and enhance price discovery, enabling quicker decision-making.



Measuring Execution Quality

With CEP incorporated directly in the Charles River IMS, traders, portfolio managers and compliance officers can more closely monitor trading activities and measure trading effectiveness across a growing number of venues and protocols. The Charles River Execution Analysis framework helps firms analyze execution quality by trader, issue or venue, for both current and past trades. ICE Data Services' Best Execution score provides a trade-by-trade measure of relative execution quality; the score is a percentile rank of the trade vs. comparable transactions in the marketplace.



Intraday NAV Calculations

Data available via Charles River IMS helps ensure that funds can calculate NAVs at any time during the trading day, using continuously updated evaluations for constituent securities. This facilitates the intraday monitoring of a fund's holdings to help ensure early identification and isolation of those positions most likely to undergo significant changes during the official overnight NAV setting process. Some institutions elect to match the timing of the official NAV setting with local market convention. Institutions are able to consider Continuous Evaluated Pricing during their official NAV setting process.

Process Integrity

ICE's evaluation workflow is designed to rapidly process and apply incoming data while retaining close evaluator oversight of market conditions. As market data is received and processed, automation rules drive the generation of continuous fixed income evaluated prices. As exceptions are identified based on built-in tolerances, ICE's team of experienced evaluators are notified.

Asset Class Coverage

ICE CEP is available for the following asset classes:



Global:

- Corporate Bonds (Investment Grade & High Yield)
- · Emerging Markets
- Money Markets
- Sovereigns



United States:

- Agencies
- MBS Pass-Throughs
- TBA Mortgages
- Munis
- Leveraged Loans



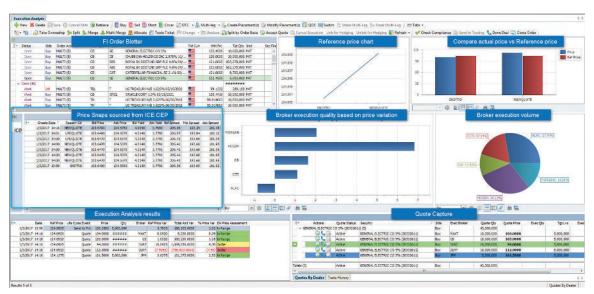
Full Trade Life Cycle Support

The Charles River IMS consolidates all fixed income trading into one scalable and simplified platform. Charles River provides full trading life cycle support that incorporates key data at the point of execution and direct connectivity to leading trading venues.

This helps eliminate switching between external systems and streamlines the fixed income trading process. Further, it helps traders more easily access critical information, find liquidity, and quickly execute trades.

All information is stored for later execution analysis and regulatory audit requirements.

The Charles River IMS provides a consolidated view of orders, quotes, evaluated pricing and trade history.



Screenshots for informative purposes only; no live data being used.



About ICE

Intercontinental Exchange, Inc. (NYSE: ICE) is a Fortune 500 company that designs, builds and operates digital networks to connect people to opportunity. We provide financial technology and data services across major asset classes that offer our customers access to mission-critical workflow tools that increase transparency and operational efficiencies. We operate exchanges, including the New York Stock Exchange, and clearing houses that help people invest, raise capital and manage risk across multiple asset classes. Our comprehensive fixed income data services and execution capabilities provide information, analytics and platforms that help our customers capitalize on opportunities and operate more efficiently. Together, we transform, streamline and automate industries to connect our customers to opportunity. Learn more at **theice.com**.

About Charles River Development, A State Street Company

Investment, wealth and alternative managers, asset owners and insurers in 30 countries rely on Charles River IMS to manage USD ~\$58 Trillion in assets. Together with State Street's middle and back office services, Charles River's cloud-based front office technology forms the foundation of State Street Alpha™. Charles River helps automate and simplify the investment process across asset classes, from portfolio management and risk analytics through trading and post-trade settlement, with integrated compliance and managed data throughout. Charles River's partner ecosystem enables clients to access the data, analytics, application and liquidity providers that support their product and asset class mix. With a 1750+ global headcount, Charles River serves clients in 11 regional offices. Learn more at crd.com (Statistics as of Q3 2023)

About State Street Corporation

State Street Corporation (NYSE: STT) is one of the world's leading providers of financial services to institutional investors including investment servicing, investment management and investment research and trading. With \$40.0 trillion in assets under custody and/or administration and \$3.7 trillion* in assets under management as of September 30, 2023, State Street operates globally in more than 100 geographic markets and employs approximately 42,000 worldwide. For more information, visit State Street's website at **statestreet.com**.

* Assets under management as of September 30, 2023 includes approximately \$58 billion of assets with respect to SPDR® products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.

Charles River Development - A State Street Company is a wholly owned business of State Street Corporation (incorporated in Massachusetts).

This document and information herein (together, the "Content") is subject to change without notice based on market and other conditions and may not reflect the views of State Street Corporation and its subsidiaries and affiliates ("State Street"). The Content is provided only for general informational, illustrative, and/or marketing purposes, or in connection with exploratory conversations; it does not take into account any client or prospects particular investment or other financial objectives or strategies, nor any client's legal, regulatory, tax or accounting status, nor does it purport to be comprehensive or intended to replace the exercise of a client or prospects own careful independent review regarding any corresponding investment or other financial decision. The Content does not constitute investment research or legal, regulatory, investment, tax or accounting advice and is not an offer or solicitation to buy or sell securities or any other product, nor is it intended to constitute any binding contractual arrangement or commitment by State Street of any kind. The Content provided was prepared and obtained from sources believed to be reliable at the time of preparation, however it is provided "as-is" and State Street makes no guarantee, representation, or warranty of any kind including, without limitation, as to its accuracy, suitability, timeliness, merchantability, fitness for a particular purpose, non-infringement of third-party rights, or otherwise. State Street disclaims all liability, whether arising in contract, tort or otherwise, for any claims, losses, liabilities, damages (including direct, indirect, special or consequential), expenses or costs arising from or connected with the Content. The Content is not intended for retail clients or for distribution to, and may not be relied upon by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to applicable law or regulation. The Content provided may contain certain statements that could be deemed forward-looking statements; any such statements or forecasted information are not guarantees or reliable indicators for future performance and actual results or developments may differ materially from those depicted or projected. Past performance is no guarantee of future results. No permission is granted to reprint, sell, copy, distribute, or modify the Content in any form or by any means without the prior written consent of State Street.

The offer or sale of any of these products and services in your jurisdiction is subject to the receipt by State Street of such internal and external approvals as it deems necessary in its sole discretion. Please contact your sales representative for further information. State Street may from time to time, as principal or agent, for its own account or for those of its clients, have positions in and/or actively trade in financial instruments or other products identical to or economically related to those discussed in this communication. State Street may have a commercial relationship with issuers of financial instruments or other products discussed in this communication.

©2023 STATE STREET CORPORATION