

Over-the-Counter Derivatives

Charles River provides a comprehensive solution with portfolio management, trading, and compliance capabilities for over-the-counter (OTC) derivatives.

Investing in OTC derivatives requires specialized capabilities. Global regulatory requirements dictate where certain orders can be executed. Unlike cash, derivatives require trade capture and quoting. Compliance rules and analytics for derivatives are complex and must be handled appropriately. The Charles River Investment Management Solution (IMS) offers buy-side firms a platform tailored towards the needs of OTC investing.

| Feature | Benefit |
|---------------------------|--|
| Regulatory indicators | Identify when an OTC order must be executed on an approved trading venue |
| SEF connectivity | Satisfy Made-Available-for-Trade (MAT) requirements |
| Approved broker controls | Helps ensure trades are placed only where an International Swaps and Derivatives Association (ISDA) or other agreements are in place |
| Cleared trade compression | Support for derivative increases and unwind functionality tailored to reflect clearinghouse's netting |
| Bilateral quote capture | View order quotes directly in the blotter and allocate directly to accounts |
| Compliance rules engine | Helps ensure adherence to exposure and other guidelines with custom rule setup |
| Integrated analytics | Calculate principal, accrued interest, DV01 and other analytics on-the-fly |



Integrated Portfolio Management Capabilities

Charles River's Manager Workbench enables portfolio managers to view and act on risk exposure across listed and OTC derivatives. Advanced views can provide leg-level detail on swap risk exposure and look-through capability to basket and index constituents.



Extensive Compliance Monitoring Capabilities

Charles River Compliance enables compliance officers to manage risk associated with the complex requirements of the OTC derivative market. Charles River provides a framework to test gross and net exposure, global counterparty exposure, coverage, diversification and the application of netting and hedging considerations. With the evolution of the global regulatory environment, Charles River Compliance supports the recognition of centrally cleared instruments and allows for the creation of custom exposure calculations.



Compliance and Risk Tools

Charles River IMS provides innovative tools that enable traders to clearly identify when a trade must follow particular regulatory requirements or necessary agreements are not in place.



Extensive Derivatives Coverage

Charles River IMS supports a large breadth of derivatives, including:

| Rates | Credit | Equity |
|------------------------------|------------------------|--------------------------|
| Interest Rate Swap (IRS) | CDS Single Name | OTC Options |
| IMM Swap | CDS Index | Listed Options |
| Inflation Swap | CDS Index Tranche | Equity Total Return Swap |
| Zero Coupon Swap | CDS Swaption | Variance Swap |
| Overnight Index Swap (OIS) | CDS Basket | Volatility Swap |
| Basis Swap | Credit Linked Note | Dividend Swap |
| Asset Swap | Bond Total Return Swap | Futures |
| Constant Maturity Swap | Asset Swap | Contract for Difference |
| Mexican TIEE Swap | | |
| Brazilian DI Swap | Commodity | Currency |
| Interest Rate Swaption | Futures | Currency Swap |
| Interest Rate Caps/Floors | Index Futures | Currency Forward |
| Interest Rate and Bond | Commodity Index Swap | FX Options |
| Futures | | Futures |
| Forward Rate Agreement (FRA) | | |

Charles River Development, A State Street Company

Investment firms, asset owners, wealth managers, hedge funds and insurers in ~30 countries rely on Charles River's front and middle office investment management platform to manage more than ~US\$35 Trillion in assets. Together with State Street's middle and back office capabilities, Charles River's cloud-deployed software technology forms the foundation of State Street AlphaSM. The Charles River Investment Management Solution (Charles River IMS) is designed to automate and simplify the institutional 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 growing partner ecosystem enables clients to seamlessly access external data and analytics, applications and liquidity venues that support the demands of their product and asset class mix. Headquartered in Burlington, Massachusetts, we serve clients globally with more than 1,000 employees in 11 regional offices.

(Statistics as of Q3 2021)

Learn more at crd.com/trading

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