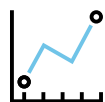


Connect to high quality and market-leading data

ICE provides data to help deepen your view of the markets, manage risk and uncover opportunity



High quality data

Bringing transparency to financial markets

- Cross-asset coverage
- Investment in new and alternative data sets
- Application of data science and artificial intelligence alongside experienced teams to provide oversight



Deep market expertise

Solving complex data problems

- Backed by over 50 years of experience
- Strategic focus on industry trends and evolving regulatory requirements
- Collaborate with clients to identify efficient solutions based on workflow needs



Advanced technology

Pushing markets forward

- Help improve operational resiliency and stability
- Focused on efficient, timely delivery and recovery solutions



Tailored solutions

Delivering data, in a variety of formats, when you need it

- Designed to seamlessly fold into existing workflows
- Leverage popular modern technologies
- Available through a broad network of software providers





Content

Unique solutions to help drive your critical workflows

Robust evaluations and pricing data: take advantage of comprehensive multi-asset class coverage including evaluated pricing, listed markets pricing, market data and valuations.

- End-of-day evaluations and intra-day Continuous Evaluated Pricing (CEP™) for global fixed income instruments used extensively across asset valuation, risk management, trading, research and compliance.
- Independent evaluations for approximately 3 million instruments daily representing 150+ countries and more than 80 currencies.
- Cross-asset OTC derivatives market data, analytical solutions and valuation capabilities covering rates, credit, FX, equity and commodities.
- CDS pricing: 2,500+ Single name curves, Indices, Tranches, Sovereigns & Quantos; End-of-day to every 20-minute curve updates; 1,000+CDS Sector Curves.
- Pricing data for equities, fixed income, derivatives, funds, FX, money markets, commodities, and cryptocurrencies from 600+ global sources, including 300+ exchanges. Deep historical data going back up to 30 years.
- Fair value information service for equities, equity index futures and equity options and certain fixed income instruments that can be used to estimate pricing during market close.

Market-leading reference data: access high-quality reference data on 43+ million financial instruments across a range of asset classes.

- Extensive security reference database covering fixed income, equities, derivatives and funds.
- Manage your security master with detailed Terms & Conditions data across a broad range of asset classes.
- Corporate actions data including mergers, capital changes, name changes, bankruptcies, dividends, repurchases, redemptions, listings, identifiers changes, and more.
- Comprehensive Business Entity Information Service links our vast security reference database to information for the issuers and their legal hierarchy of ownership.
- Specialist research data on 500,000+ entities. Legal Entity Identifiers for 260,000+ entities.
- Sector classifications on approximately 200,000 entities.
- Entity capital data including market capital, outstanding voting and non-voting shares.
- ICE Sanctions Data facilitates the identification and monitoring of sanctioned companies, groups, and their related securities for a range of sanction regimes.
- Data for products traded and cleared on ICE's global exchanges and clearing houses.

Intelligent analytics: support pre-trade decision-making and post-trade reporting, risk management and regulatory compliance with analytics tools.

- Best Execution service utilizes our live pricing CEP and historical data to help you monitor trading activities, meet regulatory compliance requirements and measure trading effectiveness across fixed income and OTC derivatives. Includes Best Execution Scores and Transaction Cost Analysis.
- ICE Liquidity Indicators™ service provides metrics for multiple asset classes at security and portfolio level to facilitate trading and risk management activities.
- Comprehensive sovereign, issuer and sector bond curves for application across investment management, risk management and pricing.
- A range of additional services to help support compliance with various regulatory requirements, including MiFID II, SEC Rule 15c 2-11, Form N-Port, FRTB and tax laws (e.g. FTT, FATCA).
- ICE Portfolio Analytics – Bonds enables you to analyze holdings at a single security or portfolio levels. Choose from a library of portfolio management workflow tools for a customized workstation.

- ICE Portfolio Analytics – Derivatives supports pre-trade price discovery and decision support tools, deal capture, trade repository, scenario analysis, market and credit risk management reports and valuations.
- ICE Economic and Commodity Fundamentals – a comprehensive dataset from dozens of sources covering a wide range of economic, demographic, energy, and financial information with key trends and indicators to facilitate in-depth analysis.
- ICE Weather Data – comprising 9 separate datasets, including U.S. and European models, ensembles, long range, live streaming, and historical observations. Delivers speed, accuracy, and global coverage on over 2,000 locations with additional country level aggregations.

Index solutions: trillions benchmarked. Billions transitioned. ICE offers a full suite of indices across asset classes and custom index capabilities for benchmarking, asset allocation and product creation. This, combined with our sophisticated data and research capabilities, enables our clients to construct innovative financial products.

Cross asset solutions: ICE has more than 50+ years' experience providing high quality index solutions, trusted by market participants globally, spanning all major asset classes globally, including fixed income, equity, currency, commodity and volatility indices across a broad range of styles and strategies:

- Fixed income index offering includes 6,000+ standard and custom indices tracking more than \$100 trillion in debt spanning the global bond markets with debt represented across 45 currencies.
- A broad suite of NYSE- branded U.S. & European equity benchmarks. ICE is a leading provider of industry, sector, thematic, and strategic beta indices.
- Commodities indices tracking production-weighted baskets of the most liquid commodity futures contracts, including new indices for electricity and the ICE U.S. Carbon Neutral Power Index.
- Indices that measure the performance of currency baskets, including the widely-recognized ICE U.S. Dollar Index (DXY) and more than 40 spot currency indices.
- A range of sustainability indices: fixed income indices that account for ESG factors (in addition to other criteria) including Paris-Aligned and Climate Transition Benchmarks; and the Global Carbon Futures Index which serves as the benchmark for the global price of carbon.

Data and analytics: ICE indices combine high quality reference data, evaluated pricing and analytics to provide investors with a broad set of tools to measure and analyze global markets with insights for better decision making.

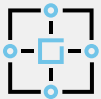
Customization capabilities: from prototyping to reality all at your fingertips. ICE offers consultative benchmark design for targeted exposures including custom datasets. ICE's Custom Index Tool enables clients to sandbox and back test strategies for research, benchmark construction, design financial products like ETFs or navigate the new world of Direct Indexing.

Calculation and distribution: our robust, technology-led, and highly scalable multi-asset indexing platform delivers flexibility and accuracy in the calculation and distribution of indices.



Cross-asset sustainable finance solutions: data and tools that provide a comprehensive view of ESG issues across the market to help you uncover opportunities, manage risk, and provide transparency to your clients.

- ICE Sustainable Finance data solutions are primarily focused on four key areas: Climate Data, Impact Data, Regulatory Data and ESG Company Data.
- Climate Physical Risk Data applies geospatial climate, economic, and demographic data to help investors quantify climate risk exposure across for municipal bonds and mortgage-backed securities portfolios.
- Climate Transition Analytics Data provides climate scenario analysis, emissions and targets data to help institutions develop decarbonization strategies and navigate the climate risk landscape.
- ESG Company Data on over 16,000+ entities collected and quality controlled by ICE helps companies' assessments of ESG risks and opportunities. Coverage includes up to 560 ESG indicators mapped to 1.4+ million fixed-income securities and 33,000+ equity instruments using a proprietary security mapping service.
- Impact bond classification service offers data that aligns with industry-recognized impact bond frameworks. This can be supplemented with ICE's impact bond use of proceeds content to assist with quantifying contribution to positive impacts made via impact bond investments.
- Social Impact Data provides socioeconomic and demographic insight on the municipal bond and mortgage-backed security (MBS) markets, enhancing the decision-making process for investors as they execute sustainable and socially conscious strategies.
- Granular ESG and climate data that supports the implementation of climate related regulation, including the U.N. Sustainable Development Goals (SDGs), Sustainable Finance Disclosure Regulation (SFDR), TaskForce on Climate-related Financial Disclosures (TCFD) Data and EU Green Taxonomy Data.



Desktops

A range of tools to suit your workflow

Desktop trading, messaging, portfolio management, risk management and analytics tools designed to match diverse workflow requirements.

ICE Connect: a range of trading tools with cross-asset, streaming market data, pricing, news, and analytics for global markets.

- Access to ICE proprietary data as well as prices from global exchanges, third-party news, advanced charting and analysis.
- Navigate oil market fundamentals and over 600 global oil products with ICE Connect Oil Desktop.
- Specialized solutions available for Natural Gas, Ags, Energy Transition, and Wealth Management.
- Integrated offering with ICE XL and ICE Python (add-on).

ICE Connect Flex: optimize middle and back-office workflows with seamless access via one integrated web-based interface to ICE's high-quality evaluations and reference data along with exchange pricing, market data and analytics.

- Market monitoring and analysis, news and fundamental data via intuitive web interfaces.
- Workflow tools for security master reconciliation, corporate actions monitoring, and price monitoring and confirmation.
- Fixed income analytics and calculation tools.

ICE Chat: a robust chat application that can be customized to support your compliance requirements.

- Make quicker business decisions leveraging ICE Chat recognition models.
- Intelligent API solutions to help you find efficiencies by automating the delivery of information.
- Industry directory boasting over 120,000 participants.

ICE Voice: a seamless, cloud-based communications platform for traders and other market participants integrated directly with ICE Chat.

- High quality audio connectivity powered by IPC's Connexus Unigy private cloud platform.
- Supports always on open connections between configurable groups of users.
- Chat and Voice logs can be integrated into a single record of communication.

QuoteBoard: a global pre-trade price discovery tool for listed and OTC equity derivatives.

- Structured IOIs and RFQs in the global equity derivatives market.
- Reach 130 banks/market makers and over 80 brokerage houses.

ICE Options Analytics: an intuitive, specialized options pricing tool.

- Advanced options valuation, analytics and risk management application that supports the latest and most complex options trading strategies.
- Price and manage basic options to exotics with pricing models and volatility curve management.
- Run real-time risk reports including PnL Attribution.



Delivery methods

A range of delivery options to suit your workflow

ICE Consolidated Feed: access low-latency, streaming data feeds from over 600 global data sources to power your trading, risk management and desktop applications across the front, middle and back office.

- A normalized data feed of trades, quotes and order book updates from global exchanges, OTC brokers, and proprietary data sets, with global multi-asset class coverage.
- Deployment options ranging from fully resilient, high throughput and latency optimized for high performance applications, to zero footprint cloud accessible for flexibility and convenience.
- A broad set of integration options for data distribution across the enterprise, using our flexible APIs and protocols.
- Compatibility with Refinitiv's Real-Time Distribution System and DACS permissioning systems.

ICE Consolidated History: access up to 30 years of pricing data from over 600 global data sources to analyze market trends, optimize trading strategies, or help comply with regulatory requirements.

- Historical trade, quote and order book updates from global exchanges, OTC brokers, and proprietary data sets, with global multi-asset class coverage.
- Choose from different presentations of data including bar aggregations, normalized event model tick history, or raw packet capture.
- Scheduled or on-demand delivery options to cloud or SFTP endpoints, allowing you to seamlessly integrate with your analytics and decision making tools.

API solutions: intraday access to multi-asset class evaluations, exchange pricing, analytics, reference data and more with the ICE Data API.

- Feed applications such as trading systems, auto bidders, market monitors and other front office tools.
- Access fixed income analytics based on ICE evaluated pricing* and reference data or your own data sources.
- Use prices or trades to calculate BestEx and TCA metrics.
- Additional data sets can be onboarded with minimal technology development.

*Provided in the U.S. through ICE Data Pricing & Reference Data, LLC and internationally through ICE Data Services entities in Europe and Asia Pacific

File access: available for a comprehensive range of ICE intraday and end-of day content.

- File-based delivery of desired content on a scheduled or on-demand basis.
- Pre-defined formats with customizable field selection.
- User-maintained securities of interest, and/or criteria-based universes to instruct the objects retrieved: instrument, legal entity, listing content, etc.
- Robust delivery options including sFTP, cloud and download from web-based applications.



Connectivity

Access to key liquidity venues around the globe, including proprietary and third-party content, in a fast, flexible and secure manner with ICE Global Network

- Access to 150+ global markets including proprietary data from NYSE and ICE Exchanges, ICE Data Services and 750+ market data sources.
- A wide variety of colocation and connectivity options – including fiber, wireless, colocation and hosting – engineered to optimize latency and handle high volume requirements.
- Uses private line connectivity to securely route orders and access hundreds of liquidity venues, data feeds, clearing and other trading services.
- Scalable colocation opportunities with our robust data and access facilities available globally including precision timing services, shared hosting, hardware procurement and managed services offerings.
- Ultra-low latency wireless routes offering faster access, superior reliability and service availability with a 30-40% latency advantage over fiber networks.
- Cloud connectivity – Access to the network through most public cloud environments utilizing our connections with Megaport and Zenlayer, as well as 500+ additional locations across the globe through the Megaport Software Defined Network.



For more information: ice.com/data

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