



CORNERSTONE RESEARCH

Economic and Financial Consulting and Expert Testimony

# Blockchain and Cryptocurrency Trade Data Forensic Analysis

Cornerstone Research has substantial experience collecting and analyzing data across blockchains, centralized cryptocurrency exchanges, and decentralized finance (DeFi) applications. We have assisted clients on a wide range of issues.

## Blockchain and Cryptocurrency Trade Data Collection

In regulatory investigations and private litigation, Cornerstone Research has:

- Collected historical transactions recorded on blockchains such as Bitcoin, Ethereum, Solana, Terra, and others.
- Collected initial coin offering (ICO) allocation and transaction data from genesis blocks.
- Connected to application programming interfaces (APIs), syncing nodes, and mimicked miner connections for proof of work and proof of stake chains.
- Collected detailed transaction and order book data from centralized exchanges, both directly through APIs and through third-party data providers.
- Collected and processed transaction data that occurred on DeFi applications and liquidity pools such as Curve Dao.

To facilitate this work, Cornerstone Research maintains full and archive nodes within our state-of-the-art computing facilities that provide us direct access to the entire Bitcoin and Ethereum blockchains. This allows us to extract, query, and analyze the blockchain data, including all of the transactional data, efficiently and at scale.

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**As digital asset transactions have become more prevalent, the complexity and volume of data stored on blockchains has grown substantially. The ability to extract, analyze, and make sense of these data is critically important for understanding the value transfers associated with market-moving events.**

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## Forensic Analysis of Blockchains and Economic Analyses of Cryptocurrency Trade Data

Cornerstone Research has conducted complex analyses of blockchain, centralized exchange, and DeFi platform data. We have assisted clients with:

- Forensic tracing of token value transfers
  - Cornerstone Research has tracked token transfers between blockchain wallets, including allocations originating from ICOs, peer-to-peer trades and other on-chain transactions, value transfers across different blockchains, and transfers from blockchains to centralized exchanges.
- Decoding the pseudo-anonymity of wallets.
  - While the address and transactions in any given wallet are public, information on the owner of the wallet is not.
  - Cornerstone Research has analyzed publicly available information, such as tweets, blog posts, public statements, and other information, in order to provide insight into the individuals and entities that own wallets containing transactions of interest.
- Economic analyses of blockchain properties.
  - Evaluated the characteristics and economic properties of blockchains and cryptoasset networks that inform network decentralization.
  - Analyzed voting delegation and proof of stake designs.
  - Assessed source blockchain code for scalability and operability.
- Economic analyses of cryptocurrency trade data. Our staff and affiliated experts have applied market micro-structure theory to datasets with billions of observations. For example, we have:
  - Analyzed volume integrity and market quality issues.
  - Analyzed centralized exchange liquidity and assessed price impact associated with large transactions.
  - Conducted empirical analyses informing where price discovery occurs across exchanges.
  - Analyzed auction price-setting mechanisms.

## Key Technology and Forensic Professionals



### Abe Chernin

Vice President  
Chicago

Abe Chernin coheads the firm's Fintech practice. He has extensive experience with cryptocurrency and regularly leads matters related to cryptocurrency categorization, cryptocurrency exchanges, stablecoin regulation, ICOs and other forms of equity crowdfunding, peer-to-peer lending, and commercial uses for blockchain technology.

Mr. Chernin is the coauthor of "The CFTC's Approach to Virtual Currencies," "Trends in CFTC Virtual Currency Enforcement," and "Economic Considerations for ICO Regulation and Litigation." He regularly presents to law firms and at conferences on the economics of cryptocurrencies.



### Robert Letson

Senior Manager  
Washington

Robert Letson specializes in matters involving market manipulation, financial benchmarks, and market microstructure, as well as issues arising in the FinTech and cryptocurrency spaces. Mr. Letson has consulted on a number of issues arising from regulatory investigations and litigation, and has specialized experience in tracing and analyzing blockchain and crypto token transactions.

Mr. Letson has spoken on the economics and market dynamics of cryptocurrencies at conferences hosted by the City and Financial London and Securities Enforcement Forum, and has coauthored publications describing the contract design of CME Bitcoin and Ethereum Futures.



### Nicole Moran

Vice President  
Washington

Nicole Moran coheads the firm's Fintech practice. She has extensive experience with cryptocurrencies, centralized exchanges, derivative contracts, blockchain, and ICOs.

Dr. Moran has written extensively on matters involving cryptocurrencies, coauthoring such publications as "The CFTC's Approach to Virtual Currencies," "Trends in CFTC Virtual Currency Enforcement," "What Does Blockchain Mean for Dispute Resolution," and "Economic Considerations for ICO Regulation and Litigation" as well as articles describing the contract design of CME Bitcoin and Ethereum Futures.

Dr. Moran is an expert in analyzing large, complex datasets, including those from financial institutions and exchanges. She has appeared on behalf of clients before enforcement staffs at the U.S. Department of Justice, Federal Reserve, and the U.S. Commodity Futures Trading Commission.



### Blake Boswell

Senior Lead Data Scientist  
Washington

Blake Boswell is a senior lead data scientist in Cornerstone Research's Data Science Center. Mr. Boswell has substantial experience providing data engineering and computational support to matters involving commercial FinTech, cryptocurrencies, blockchain technology, and market microstructure.

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For more information

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## About Cornerstone Research

Cornerstone Research provides economic and financial consulting and expert testimony in all phases of complex litigation and regulatory proceedings. The firm works with an extensive network of prominent faculty and industry practitioners to identify the best-qualified expert for each assignment.

Cornerstone Research has earned a reputation for consistent high quality and effectiveness by delivering rigorous, state-of-the-art analysis for more than thirty years. The firm has over 700 staff and offices in Boston, Chicago, London, Los Angeles, New York, San Francisco, Silicon Valley, and Washington.

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