

AVONBRIDGE  
CAPITAL

**AVONBRIDGE CAPITAL**  
E D U C A T I O N

# The History of Quantitative Trading

---

*From early statistical pioneers to modern machine learning — the evolution of systematic strategies over 50+ years of institutional finance.*

---

*Structured Access to Systematic Trading Strategies*

---

Avonbridge Capital acts as an introduction and access layer to third-party trading strategies. We do not provide investment advice, manage client funds, or take custody of assets. All onboarding, execution, and account management are conducted by regulated third-party providers. Past performance is not indicative of future results. Capital is at risk.

---

1960S - 1970S

## Origins: The Mathematical Revolution

The story of quantitative trading begins with a handful of mathematicians and scientists who recognised that financial markets, far from being purely random, contained patterns that could be identified and exploited through rigorous mathematical analysis.

Edward Thorp, a mathematics professor at MIT, is widely credited as the father of quantitative finance. After proving that blackjack could be beaten through card counting (published in 'Beat the Dealer', 1962), Thorp turned his attention to financial markets. His 1967 book 'Beat the Market' demonstrated that warrants and convertible bonds could be systematically mispriced — and that mathematical models could exploit these inefficiencies consistently.

Around the same time, Fischer Black, Myron Scholes, and Robert Merton were developing the Black-Scholes options pricing model (published 1973), which would transform the financial industry and earn Scholes and Merton the Nobel Prize in Economics. This work demonstrated that complex financial instruments could be valued through mathematical formulas — laying the intellectual foundation for quantitative trading.

---

1980S

## The Pioneers: Building the First Systematic Firms

The 1980s saw the founding of firms that would become legends of quantitative finance.

### Renaissance Technologies (1982)

Jim Simons, a former NSA codebreaker and chair of the mathematics department at Stony Brook University, founded Renaissance Technologies. Simons hired mathematicians, physicists, and computer scientists — deliberately avoiding traditional Wall Street analysts. His Medallion Fund would go on to deliver an average annual return of approximately 66% before fees over several decades, making it arguably the most successful investment vehicle in history.

### Man AHL (1987)

Michael Adam, David Harding, and Martin Lueck founded AHL (later acquired by Man Group), building one of the first large-scale systematic trend-following operations. Their approach — identifying and following price trends across multiple asset classes — proved remarkably durable.

---

*Avonbridge Capital acts as an introduction and access layer to third-party trading strategies. We do not provide investment advice, manage client funds, or take custody of assets. All onboarding, execution, and account management are conducted by regulated third-party providers. Past performance is not indicative of future results. Capital is at risk.*

Nearly 40 years later, Man AHL continues to operate with over \$70 billion in assets under management.

## **DE Shaw (1988)**

David Shaw, a computer science professor at Columbia University, founded DE Shaw with the thesis that computational power and mathematical models could identify market inefficiencies invisible to human traders. The firm attracted some of the brightest minds in technology — including a young Jeff Bezos, who left DE Shaw in 1994 to found Amazon.

---

1 9 9 0 S - 2 0 0 0 S

## **Institutional Adoption**

Through the 1990s and 2000s, systematic trading moved from the fringes to the mainstream of institutional finance. Pension funds, sovereign wealth funds, and university endowments began allocating significant capital to quantitative strategies, attracted by their consistent risk-adjusted returns and lack of correlation to traditional asset classes.

This period also saw the founding of Two Sigma (2001) by David Siegel and John Overdeck, both former DE Shaw executives. Two Sigma would grow to manage over \$60 billion using machine learning and distributed computing — representing the next evolution of systematic trading.

Citadel, founded by Ken Griffin in 1990, also emerged as one of the world's most significant quantitative investment firms, managing hundreds of billions across systematic and fundamental strategies.

---

2 0 1 0 S - P R E S E N T

## **The Technology Revolution**

The 2010s brought a wave of technological advancement that further accelerated the dominance of systematic approaches.

- Machine Learning — Advanced statistical methods that can identify non-linear patterns in market data, improving signal generation and risk management.
- Cloud Computing — Massive computational resources available on demand, enabling more complex models and faster research cycles.

---

*Avonbridge Capital acts as an introduction and access layer to third-party trading strategies. We do not provide investment advice, manage client funds, or take custody of assets. All onboarding, execution, and account management are conducted by regulated third-party providers. Past performance is not indicative of future results. Capital is at risk.*

- Alternative Data — Satellite imagery, social media sentiment, transaction data, and other non-traditional data sources providing new inputs for systematic models.
- Execution Technology — Algorithmic execution systems that minimise market impact and ensure optimal order placement across global markets.

Today, systematic and algorithmic trading accounts for an estimated 60–75% of all equity trading volume. It is no longer an alternative approach — it is the dominant paradigm in institutional investment management.

---

## TAKEAWAYS

### What This Means Today

The 50+ year history of quantitative trading demonstrates several important truths for investors:

- Longevity — Systematic approaches have performed through every major market cycle, crisis, and structural change over five decades.
- Continuous Improvement — Strategies evolve with technology and markets. Today's systematic approaches are far more sophisticated than their predecessors.
- Institutional Validation — The world's largest, most sophisticated, and most heavily regulated investors rely on systematic strategies as a core allocation.
- Accessibility — What was once available only to the largest institutions is now accessible to a broader range of qualified investors through structured access platforms.

Avonbridge Capital provides structured access to this institutional capability — connecting qualified investors with verified systematic strategies through regulated third-party infrastructure.

---

**AVONBRIDGE CAPITAL**  
*Structured Access to Systematic Trading Strategies*

---

Avonbridge Capital acts as an introduction and access layer to third-party trading strategies. We do not provide investment advice, manage client funds, or take custody of assets. All onboarding, execution, and account management are conducted by regulated third-party providers. Past performance is not indicative of future results. Capital is at risk.