From Preferences to Positions: Financial-Memory–Driven Portfolio Decisions

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Abstract

This research introduces *Intelligent*, a ready-to-use, memory-centered multi-agent platform designed for comprehensive portfolio management. Its architecture orchestrates specialized agents—Research, Selection, Weighting, Rebalancing, and Quality Control—via a shared Financial Memory that logs investor preferences, past decisions, and market conditions, enabling transparent reasoning and self-correction throughout the process. The research details a year long comparison involving 10 historical client profiles, in which AI-managed portfolios are developed alongside human benchmarks with the same goals and constraints. The AI performs daily, event-driven rebalancing, while human portfolios are adjusted monthly. Risk-adjusted metrics assume rf = 2%. The research indicates that AI increases the average Sharpe ratio from 0.46 to 0.79, reduces volatility from 14.7% to 12.35%, and reduces the maximum drawdown from −14.6% to −9.4%. Significance is confirmed through paired sign tests (Return: 9/10, p=0.0107; Sharpe, Volatility↓, MaxDD↓, Treynor, Personalization: 10/10, p=0.00098; α=0.05). Ongoing monitoring with quick, constraint-aware adjustments seems key to improving risk management and personalization. Intelligent systems significantly reduce portfolio creation time from approximately 8 hours to 20 minutes, decrease decision latency from 3 hours to 2 minutes, expand bespoke coverage from 20 to nearly 10,000 simultaneous portfolios, and improve constraint adherence from 85% to 98%. These results demonstrate that a reasoning-focused, memory-augmented architecture can provide safer, more personalized, and highly scalable wealth management solutions, with statistically significant performance gains ($p < 0.05$).

Keywords

Intelligent, portfolio management, Selection, Weighting, Rebalancing, Quality Control.