The Wall Street Algo

A Cycle-Aware Decision Framework for Human and Autonomous Investors
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Abstract

The Wall Street Algo is a structured market decision framework designed to generate probabilistic trading signals using price structure, technical signals, long-term cycles, and contextual events. Unlike purely predictive models, the framework organizes multiple sources of market intelligence into a layered decision architecture that can be executed by either human traders or autonomous software agents. The framework is implemented commercially through the Algoz.ai platform and is designed for integration with modern automation environments such as n8n and MCP-based agents.

1. Introduction

Financial markets are driven by a combination of price structure, behavioral cycles, technical signals, and macroeconomic or geopolitical events. Traditional trading systems often rely on a single dimension of this environment. The Wall Street Algo integrates these dimensions into a unified decision framework designed to operate across multiple time horizons.

2. Design Principles

The Wall Street Algo is built on five core principles: probabilistic decision-making rather than deterministic prediction; a multi-layer analytical architecture; awareness of recurring market cycles; execution neutrality across human and autonomous agents; and structured, machine-readable signal output.

3. Four-Layer Framework Overview

The framework consists of four analytical layers: the Structural Price Engine, the Signal Engine, the Cycle Intelligence Layer, and the Context and Event Layer. Signals are strongest when alignment exists across multiple layers.

4. Structural Price Engine

The Structural Price Engine defines dynamic support and resistance levels, volatility-adjusted zones, and pivot regions where market behavior historically changes. These levels form the foundation of all downstream signals.

5. Signal Engine

The Signal Engine generates rule-based buy and sell signals including short-term crossovers, breakout conditions, mean-reversion setups, unusual options activity, and volume anomalies. Signals are ranked and aggregated into actionable outputs.

6. Cycle Intelligence Layer

The Cycle Intelligence Layer incorporates annual seasonality, weekly trading patterns, and long-term structural cycles such as the 11-year market cycle. These cycles constrain risk, position sizing, and signal aggressiveness.

7. Context and Event Layer

External events modify signal confidence and volatility expectations. These include earnings announcements, central bank decisions, macroeconomic releases, geopolitical developments, and alternative data sources such as insider trading and sentiment metrics.

8. Signal Confluence and Decision Logic

Signals are evaluated based on confluence across layers. Full alignment produces Tier 1 signals, partial alignment produces Tier 2 signals, and weak alignment results in Tier 3 signals.

9. Agentic Execution Model

The Wall Street Algo is designed for execution by both human traders and autonomous agents. Signals may be consumed through dashboards, JSON APIs, REST endpoints, or automation environments such as n8n and MCP-based agents.

10. Algoz.ai Platform Implementation

Algoz.ai provides the commercial implementation of the Wall Street Algo, delivering signals through dashboards, watchlists, APIs, and agent integration endpoints for advanced automation.

11. Conclusion

The Wall Street Algo represents a structured, cycle-aware decision framework designed for modern financial markets and agent-driven execution systems. By emphasizing probabilistic decision quality over prediction, the framework provides a durable foundation for both human and autonomous investing strategies.