

Mid-Competition Update

AI-Powered Stock Investment Competition
Date: November 04, 2025

1. Performance Review

Current Portfolio Status (Day 1):

Starting Capital: €1000.00
Current Portfolio Value: €1000.00
Cash Remaining: €31.65
Profit/Loss: €0.00 (+0.00%)
Positions: 6 out of 15 allowed

Current Holdings:

Ticker	Name	Region	Shares	Avg Price	Value
AMD	AMD	US	1	€222.48	€222.48
AMZN	Amazon	US	1	€221.32	€221.32
0700.HK	Tencent	HK	3	€70.49	€211.48
9988.HK	Alibaba	HK	8	€17.82	€142.56
1810.HK	Xiaomi	HK	15	€4.87	€72.99
6758.T	Sony	JP	4	€24.38	€97.52

Regional Allocation vs. Targets:

Region	Current	Target	Difference	Status
US	44.4%	50.0%	-5.6%	✓ Close to target
Hong Kong	42.7%	30.0%	+12.7%	■ Overweight
Japan	9.8%	20.0%	-10.2%	■ Underweight
EU (ETFs)	0.0%	0.0%	0.0%	✓ As planned

Trades Executed So Far:

Total Trades: 6
All trades executed on November 4, 2025 (Day 1)
Compliance: All trades respect 25% position size limit ✓
3-Day hold period: Active until November 7, 2025

2. AI System Learnings

2.1 Multi-Agent Architecture Implementation

We implemented a **Tier 2 Coordinated Agent System** with three specialized agents working in sequence. This approach ensures systematic validation and reduces the risk of acting on hallucinated or misleading information.

Agent 1: Market Research Analyst (Gemini Advanced)

- Role: Fundamental analysis of company financials, sector trends, and growth prospects
- Input: Company earnings reports, market news, sector analysis
- Output: Research insights with conviction scores (1-10 scale)
- Challenge: Tendency to overstate growth prospects without quantitative backing

Agent 2: Fact Validator (ChatGPT-4)

- Role: Cross-verification of Agent 1 claims against authoritative sources
- Input: Research claims from Agent 1
- Output: Verified/rejected claims with source citations
- Challenge: Yahoo Finance API limitations for intraday Asian market data

Agent 3: Portfolio Decision Maker (Claude)

- Role: Synthesize validated research into actionable trade recommendations
- Input: Verified research + current portfolio state + risk parameters
- Output: BUY/SELL/HOLD recommendations with detailed rationale
- Challenge: Conservative bias when conviction scores are marginal (6-7/10)

2.2 Surprises and Discoveries

Data Quality Issues: Asian market data (Hong Kong, Japan) was unavailable during European trading hours via Yahoo Finance's intraday API. Our system automatically fell back to daily close prices, which introduced a 15-hour lag. This taught us the importance of implementing robust fallback mechanisms for real-time trading systems.

Position Sizing Conflicts: Initial trade recommendations from Agent 3 frequently violated the 25% position size limit. We discovered that the agent was calculating position size against available cash rather than total portfolio value, leading to oversized positions. This was corrected by explicitly passing portfolio value to the decision logic.

Regional Allocation Drift: Without explicit regional allocation constraints in the prompt, Agent 3 consistently over-allocated to Hong Kong stocks (42.7% vs 30% target) due to their lower absolute prices, allowing more shares per position. We added allocation monitoring and preference scoring to guide future trades toward underweight regions.

2.3 Validation Gaps Discovered

- **Currency Conversion Timing:** FX rates used were snapshot-in-time, but could diverge significantly during volatile periods. No validation of FX rate reasonableness was implemented.
- **Market Hours Awareness:** Agents initially recommended trades during closed market hours without flagging execution risk.
- **Earnings Calendar:** No systematic check for upcoming earnings announcements that could trigger volatility.
- **Sector Correlation:** Over-concentration in technology sector (85%+ of portfolio) not flagged as a

diversification risk.

2.4 System Adjustments Made

1. Added explicit portfolio value calculation before position sizing
2. Implemented regional allocation monitoring with target differentials
3. Added market hours awareness (though still accepting daily closes for Asian markets)
4. Introduced 3-day hold period tracking to enforce competition rules
5. Created automated stop-loss monitoring at -8% threshold per investment thesis

3. Revised Strategy for Final Week

3.1 Immediate Priorities (Nov 5-7)

Rebalance Regional Allocation: Priority 1 is to correct the Hong Kong overweight ($42.7\% \rightarrow 30\%$) and Japan underweight ($9.8\% \rightarrow 20\%$). Next trades will target:

- **Japan:** Add SoftBank (9984.T) or increase Toyota position (currently have capital constraints)
- **US:** Add Microsoft (MSFT) or Meta (META) to strengthen AI/Cloud exposure
- **Hold HK:** No additional Hong Kong positions until allocation normalizes

Expand to 10-12 Positions: Currently at 6/15 positions, which provides insufficient diversification. Target 10-12 positions by mid-week to reduce single-stock risk while staying below the maximum 15.

3.2 Risk Mitigation Adjustments

- **Daily Stop-Loss Review:** Automated monitoring of all positions against -8% threshold with agent-generated sell recommendations if triggered
- **Sector Diversification:** Current portfolio is 85%+ technology. Will consider adding exposure to healthcare, consumer goods, or financials if opportunities arise
- **Smaller Position Sizes:** Reduce initial position sizes from ~20% to 10-15% to allow room for additional diversification
- **Cash Reserve:** Maintain €50-100 cash buffer for opportunistic trades or stop-loss exits

3.3 AI Workflow Refinements

Enhanced Prompts: All future research prompts will explicitly include:

- Current portfolio state (to avoid over-concentration)
- Regional allocation targets (to guide recommendations)
- Upcoming earnings calendars (to flag event risk)
- Sector correlation analysis (to prevent tech overweight)

Cross-Model Validation: For any BUY recommendation with conviction $\geq 8/10$, we will run a parallel analysis through a second model (e.g., Gemini + Claude) to detect confirmation bias or model-specific blindspots.

Daily Monitoring Cadence:

- Morning (9 AM CET): Update prices, check Asian market closes
- Midday (12 PM CET): Agent 1 research scan for opportunities

- Afternoon (3 PM CET): Agent 2 validation + Agent 3 recommendations
- Evening (6 PM CET): Execute max 1 trade if approved, document in Teams

3.4 Target Outcome

Our revised target remains **8-15% return** over the 3-week simulation. Given that we are starting Day 1 at break-even with a well-diversified foundation, we are comfortable taking measured risks in the final 10 days. Key success metrics:

- Achieve 50/30/20 regional allocation ($\pm 5\%$)
- Maintain 10-12 positions for optimal diversification
- Zero stop-loss triggers (demonstrates stock selection quality)
- Max drawdown < 5% (half of our -10% tolerance)

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Documentation: All trades are logged in portfolio_trades.csv and uploaded to Teams within 5 minutes. AI prompts and validation steps are documented in JSON format for audit trail.