

# Portfolio Distribution Analysis

## Top Holdings Concentration

The portfolio's top five holdings are:

- **Lockheed Martin (LMT): 13.45%**
- **Deere & Co. (DE): 11.56%**
- **SPY ETF: 10.35%**
- **T-Mobile (TMUS): 7.82%**
- **JPMorgan Chase (JPM): 7.39%**

Three securities — **LMT, DE, and SPY** — individually exceed 10% portfolio weight, indicating a moderately concentrated allocation at the top of the portfolio.

## Sector-Level Concentration

- **Military Engineering:**  
LMT represents **86.06%** of the sector allocation (~2.20k invested), indicating significant single-stock concentration risk within this segment.
- **Agriculture:**  
DE accounts for **69%** of the agriculture exposure (~1.89k invested), suggesting limited diversification within the sector.
- **Financials:**  
SPY contributes **45.04%** of the financial sector exposure (~1.69k of total 3.76k invested in finance).  
The remaining allocation is reasonably diversified across:
  - JPM: 32.16%
  - MSCI: 14.98%
  - IBKR: 4.62%
  - MS: 3.20%

Compared to Military Engineering and Agriculture, the Financials sector demonstrates a more balanced distribution across multiple securities.

## Key Observation

The **Military Engineering sector is highly concentrated**, with the majority exposure driven by a single stock (LMT). This introduces idiosyncratic risk and may amplify volatility if adverse company-specific events occur. Diversification within this sector could reduce concentration risk.

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# Portfolio Performance Analysis

## Sector Performance

The following sectors generated compounded returns exceeding 10%:

- Financials
- Entertainment
- Information Technology
- Agriculture

These sectors were primary contributors to overall portfolio performance.

## Stock-Level Performance

The strongest-performing individual securities (compounded return >10%) were:

- Netflix
- MSCI
- Deere & Co.

These names materially supported portfolio returns.

## Absolute Performance

- **Portfolio CAGR:** 18.90%
- The portfolio closely tracked the S&P 500 during the analysis period, with intermittent periods of outperformance.

Final comparative performance:

- **Portfolio:** +0.10%
- Nasdaq: -7.91%
- S&P 500: -3.64%
- Dow Jones: -1.31%

Despite volatility during the period, the portfolio outperformed all three benchmarks on a relative basis by the end of the timeframe.

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# Risk Analysis

- **Annualized Volatility:** 21.77%
- **Maximum Drawdown:** 31.03%
- **Sharpe Ratio:** 0.72

The Sharpe ratio of 0.72 indicates moderate risk-adjusted performance — returns were achieved with a reasonable, though not exceptional, compensation for volatility.

## Tracking Error (Relative to Benchmarks)

- Nasdaq: 42.33%
- Dow Jones: 31.13%
- S&P 500: 26.54%

The higher tracking error versus Nasdaq suggests significant deviation from tech-heavy exposure, while the relatively lower tracking error versus the S&P 500 indicates partial alignment with broad-market composition.

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# Overall Assessment

- The portfolio demonstrates **strong CAGR (18.90%) and relative benchmark outperformance**.
- Risk metrics indicate **moderate-to-high volatility with controlled risk-adjusted returns**.
- The primary structural concern lies in **sector-level concentration risk**, particularly within Military Engineering and Agriculture.
- Financials exposure appears well diversified relative to other sectors.