

GAM01: AAA Gaming Publisher Analysis

Technical Analysis Report | February 01, 2026

1. Data Overview

Subject: Activision Blizzard (ATVI)
Analysis Period: 2016-02-03 to 2026-01-30 (~44.8 years)
Total Observations: 12,777 rows
Stock Data: 11,282 daily OHLCV observations
Data Sources: Yahoo Finance API (yfinance), synthetic operational metrics

2. Methodology

2.1 Risk Analytics (CFA Standards)

- **Sharpe Ratio:** $(\text{Return} - R_f) / \text{Volatility} (R_f = 0)$
- **Sortino Ratio:** $\text{Return} / \text{Downside Deviation}$
- **Value at Risk (VaR):** Historical 95% and 99% confidence
- **Maximum Drawdown:** Peak-to-trough decline

2.2 Technical Indicators

- **Moving Averages:** SMA/EMA (20, 50, 200 day)
- **Volatility:** Rolling standard deviation (20, 60, 252 day)
- **Momentum:** RSI-14, Price momentum (20-252 day)

3. Risk Metrics Summary

| Ticker | Total Return | Ann. Return | Volatility | Sharpe | Max DD |
|--------|--------------|-------------|------------|--------|--------|
| ATVI | 15093.2% | 11.9% | 29935.0% | 0.00 | -99.5% |

4. Detailed Risk Profile

Return Distribution

| Metric | Value |
|---------------|-----------|
| Positive Days | 49.8% |
| Best Day | 16670.29% |
| Worst Day | -99.41% |
| Sortino Ratio | 0.02 |

Value at Risk

| Confidence | Daily VaR |
|------------|-----------|
| 95% | -97.41% |
| 99% | -99.10% |

5. Data Quality Assessment

Completeness: All trading days covered
Adjustments: Prices adjusted for splits/dividends
Validation: Stock data from Yahoo Finance
Processing: Pandas/NumPy calculations
Disclaimer: Operational metrics are synthetic/illustrative

6. Key Observations

- Sector volatility characteristics relative to market indices
- Risk-adjusted return profile (Sharpe, Sortino)
- Drawdown behavior during market stress periods
- Volume and liquidity patterns

