

# Portfolio Risk Analysis Report

**Report Date:** October 14, 2025

**Portfolio Size:** 100 Assets

**Analysis Period:** 12 Months

**Generated by:** Automated Risk Analysis Pipeline

## Risk Assessment Summary

**HIGH RISK (RED):** 71 Assets  
**MEDIUM RISK (YELLOW):** 0 Assets  
**LOW RISK (GREEN):** 29 Assets

## Executive Summary

This report presents a comprehensive risk analysis of a portfolio containing 100 assets with a combined market capitalization of \$12724.3 billion. **Key Findings:** • 71 assets (71.0%) are rated as HIGH RISK (RED) • 0 assets (0.0%) are rated as MEDIUM RISK (YELLOW) • Average portfolio volatility: 30.1% • Maximum drawdown observed: -55.8% **Risk Concentration:** The analysis reveals significant risk concentration in 71 assets requiring immediate attention and potential portfolio rebalancing. **Sentiment Analysis:** • 36 RED-flagged assets show negative market sentiment • Average sentiment score for flagged assets: -0.303 • News coverage indicates heightened market concern for these positions

## Portfolio Overview

### Sector Allocation

Sector	Assets	Market Cap (\$B)	Percentage
Technology	16	3084.98	24.2%
Healthcare	8	2024.21	15.9%
Energy	11	1408.19	11.1%
Consumer Discretionary	13	1377.41	10.8%
Utilities	15	1327.28	10.4%
Industrial	6	899.09	7.1%
Real Estate	7	824.60	6.5%
Materials	9	813.97	6.4%
Financial Services	9	667.10	5.2%
Consumer Staples	6	297.47	2.3%

## Risk Analysis Results

### Risk Distribution:

- HIGH RISK (RED): 71 assets
- MEDIUM RISK (YELLOW): 0 assets
- LOW RISK (GREEN): 29 assets

### High Risk Assets

Symbol	Sector	Risk Rating	Volatility	Max Drawdown	Risk Score
ABH	Materials	RED	31.9%	-38.3%	5
PKT	Healthcare	RED	28.0%	-48.7%	5
GU	Real Estate	RED	39.9%	-41.9%	4
BNTH	Energy	RED	28.8%	-45.1%	4
VC	Energy	RED	47.3%	-41.8%	4

ME	Financial Services	RED	40.4%	-37.9%	3
POK	Financial Services	RED	42.1%	-55.8%	3
RKT	Technology	RED	36.6%	-45.5%	3
XD	Consumer Staples	RED	41.2%	-55.7%	3
ZD	Energy	RED	18.5%	-25.5%	2
AB	Real Estate	RED	24.6%	-44.1%	2
TJI	Consumer Discretionary	RED	32.4%	-33.4%	2
ST	Utilities	RED	30.1%	-42.3%	2
NQ	Technology	RED	20.9%	-33.6%	2
NCON	Financial Services	RED	35.1%	-40.5%	2
GWY	Energy	RED	44.4%	-43.1%	2
MD	Consumer Staples	RED	19.8%	-35.5%	2
ANLD	Materials	RED	17.0%	-23.0%	2
VQH	Materials	RED	25.8%	-36.8%	2
PQB	Consumer Discretionary	RED	32.9%	-51.0%	2
GTR	Technology	RED	33.4%	-43.9%	2
GUB	Technology	RED	32.7%	-33.4%	2
AQT	Consumer Discretionary	RED	43.7%	-38.2%	2
NJB	Real Estate	RED	37.3%	-45.4%	2
RK	Utilities	RED	41.8%	-30.1%	2
ZGS	Financial Services	RED	24.5%	-37.4%	2
AQ	Energy	RED	38.8%	-55.8%	2
DO	Utilities	RED	39.9%	-47.5%	2
SMN	Technology	RED	18.2%	-22.2%	2
CPM	Technology	RED	22.9%	-36.0%	2
PG	Energy	RED	40.9%	-25.4%	2
MV	Financial Services	RED	41.7%	-31.0%	2
GEHK	Materials	RED	35.5%	-36.1%	2
PQT	Materials	RED	41.4%	-27.4%	2
TUET	Consumer Staples	RED	43.6%	-32.5%	2
ML	Technology	RED	23.5%	-31.4%	2
CNF	Utilities	RED	28.4%	-28.3%	2
ZD	Energy	RED	16.2%	-22.0%	2
GTGN	Energy	RED	41.3%	-33.7%	2
CG	Consumer Staples	RED	25.3%	-36.1%	1
NVZ	Healthcare	RED	36.3%	-37.9%	1
MA	Real Estate	RED	34.7%	-34.2%	1
TGR	Industrial	RED	39.3%	-45.9%	1
DFL	Consumer Discretionary	RED	38.4%	-21.9%	1
BAG	Utilities	RED	33.7%	-28.3%	1
NMRE	Healthcare	RED	25.9%	-24.6%	1

VJE	Technology	RED	27.6%	-27.0%	1
PFH	Materials	RED	21.7%	-24.9%	1
RD	Materials	RED	25.8%	-22.5%	1
ZMB	Utilities	RED	37.7%	-31.6%	1
DLTW	Industrial	RED	34.9%	-33.2%	1
TZI	Consumer Discretionary	RED	29.3%	-31.2%	1
SEG	Technology	RED	31.0%	-32.3%	1
ZWV	Energy	RED	33.3%	-20.4%	1
PLA	Consumer Staples	RED	30.9%	-20.9%	1
GBX	Financial Services	RED	36.2%	-37.6%	1
NNJQ	Real Estate	RED	17.6%	-24.6%	1
MJM	Consumer Staples	RED	31.5%	-21.2%	1
BPYN	Consumer Discretionary	RED	30.0%	-32.1%	1
XNU	Utilities	RED	39.9%	-44.9%	1
CXW	Healthcare	RED	33.2%	-31.0%	1
CIPG	Industrial	RED	21.3%	-23.6%	1
ZKD	Industrial	RED	33.2%	-32.2%	1
GY	Healthcare	RED	37.0%	-22.3%	1
PGGX	Technology	RED	27.3%	-29.8%	1
NLO	Technology	RED	26.7%	-24.1%	1
DV	Utilities	RED	37.2%	-22.4%	1
RCAO	Utilities	RED	39.9%	-22.8%	1
VZ	Technology	RED	27.8%	-21.0%	1
NQ	Consumer Discretionary	RED	39.3%	-32.7%	1
TZS	Industrial	RED	30.8%	-35.3%	1

## Machine Learning Analysis

Advanced machine learning techniques were applied to identify anomalies and predict future risk ratings. **Anomaly Detection Summary:**

- Total Anomalies Detected: 15
- Critical Anomalies: 1
- High Risk Anomalies: 5
- Anomaly Rate: 15.0%

**Risk Prediction Model:**

- Model Accuracy: 100.0%
- Rating Changes Predicted: 0
- Assets Predicted to Deteriorate: 0
- Assets Predicted to Improve: 0

## Key Machine Learning Insights

- 1 assets show critical anomalous behavior requiring immediate review
- Anomaly detection identified 15 assets with unusual patterns

- Key risk drivers: Max Drawdown, Volatility, Sharpe Ratio

## Critical Anomalies Detected

Symbol	Sector	Anomaly Score	Severity	Recommendation
PKT	Healthcare	100.0	CRITICAL	Critical anomaly - Consider immediate po...
NJB	Real Estate	72.8	HIGH	Significant anomaly - Conduct thorough d...
PQT	Materials	70.2	HIGH	Significant anomaly - Conduct thorough d...
POK	Financial Services	67.1	HIGH	Significant anomaly - Conduct thorough d...
GU	Real Estate	64.0	HIGH	Significant anomaly - Conduct thorough d...
VC	Energy	63.8	HIGH	Significant anomaly - Conduct thorough d...

## Top Risk Factors (Feature Importance)

1. Max Drawdown: 65.3% importance
2. Volatility: 9.2% importance
3. Sharpe Ratio: 9.2% importance
4. Price Change 6M: 7.2% importance
5. Price Change 3M: 3.7% importance

## Sentiment Analysis

Sentiment analysis was conducted on 71 RED-flagged assets using financial news from the past 12 months. **Key Findings:**

- Average sentiment score: -0.303
- Assets with negative sentiment: 36/71
- Total news articles analyzed: 1563

## Sentiment Analysis Results

Symbol	Sentiment Score	Label	News Count	Trend	Key Themes
NCON	-0.480	NEGATIVE	22	DETERIORATING	financial_health, earnings, regulatory
AB	-0.473	NEGATIVE	25	IMPROVING	financial_health, regulatory, operations
SEG	-0.423	NEGATIVE	22	IMPROVING	earnings, regulatory, financial_health
PQB	-0.420	NEGATIVE	24	STABLE	regulatory, financial_health, operations
RKT	-0.405	NEGATIVE	19	STABLE	earnings, financial_health, regulatory
MD	-0.394	NEGATIVE	23	IMPROVING	earnings, operations, regulatory
POK	-0.391	NEGATIVE	19	STABLE	regulatory, market_share, operations
NNJQ	-0.390	NEGATIVE	19	STABLE	earnings, market_share, financial_health
GTGN	-0.389	NEGATIVE	28	STABLE	earnings, regulatory, market_share

PG	-0.389	NEGATIVE	26	DETERIORATING	financial_health, regulatory, market_share
PLA	-0.384	NEGATIVE	23	DETERIORATING	financial_health, earnings, operations
PGGX	-0.383	NEGATIVE	17	IMPROVING	operations, regulatory, management
BPYN	-0.381	NEGATIVE	30	IMPROVING	regulatory, operations, financial_health
RD	-0.380	NEGATIVE	22	DETERIORATING	regulatory, earnings, management
CPM	-0.380	NEGATIVE	27	IMPROVING	earnings, operations, regulatory
VC	-0.377	NEGATIVE	18	DETERIORATING	operations, earnings, regulatory
ZD	-0.373	NEGATIVE	25	IMPROVING	earnings, regulatory, management
CIPG	-0.370	NEGATIVE	23	IMPROVING	regulatory, market_share, financial_health
GBX	-0.367	NEGATIVE	28	DETERIORATING	regulatory, financial_health, earnings
ABH	-0.356	NEGATIVE	22	IMPROVING	regulatory, earnings, financial_health
ZD	-0.354	NEGATIVE	19	STABLE	earnings, market_share, financial_health
AQT	-0.353	NEGATIVE	18	IMPROVING	earnings, regulatory, operations
RK	-0.348	NEGATIVE	17	STABLE	regulatory, financial_health, earnings
ZMB	-0.346	NEGATIVE	20	STABLE	operations, market_share, earnings
CG	-0.331	NEGATIVE	30	STABLE	earnings, regulatory, management
NMRE	-0.328	NEGATIVE	15	DETERIORATING	regulatory, financial_health, earnings
GY	-0.326	NEGATIVE	25	IMPROVING	regulatory, earnings, financial_health
BAG	-0.326	NEGATIVE	28	IMPROVING	regulatory, earnings, financial_health
TZI	-0.323	NEGATIVE	22	STABLE	operations, earnings, regulatory
DO	-0.323	NEGATIVE	28	STABLE	financial_health, regulatory, earnings
ZGS	-0.322	NEGATIVE	15	STABLE	earnings, regulatory, financial_health
TGR	-0.320	NEGATIVE	20	IMPROVING	earnings, regulatory, financial_health
MA	-0.318	NEGATIVE	24	DETERIORATING	regulatory, financial_health, earnings
ZWV	-0.318	NEGATIVE	22	STABLE	regulatory, financial_health, operations
GEHK	-0.308	NEGATIVE	27	IMPROVING	earnings, financial_health, regulatory
DLTW	-0.302	NEGATIVE	21	DETERIORATING	regulatory, financial_health, operations
MV	-0.299	NEUTRAL	30	IMPROVING	earnings, regulatory, financial_health
XNU	-0.297	NEUTRAL	20	DETERIORATING	regulatory, earnings, operations
PKT	-0.295	NEUTRAL	22	DETERIORATING	operations, financial_health, earnings
GTR	-0.295	NEUTRAL	29	IMPROVING	earnings, regulatory, financial_health
VZ	-0.295	NEUTRAL	24	IMPROVING	financial_health, earnings, regulatory
NLO	-0.289	NEUTRAL	18	IMPROVING	earnings, financial_health, regulatory
NJB	-0.280	NEUTRAL	25	STABLE	operations, regulatory, earnings
GWY	-0.278	NEUTRAL	24	STABLE	earnings, financial_health, regulatory
TZS	-0.278	NEUTRAL	21	IMPROVING	regulatory, financial_health, earnings
NQ	-0.276	NEUTRAL	24	DETERIORATING	financial_health, regulatory, market_share
VJE	-0.276	NEUTRAL	30	DETERIORATING	regulatory, earnings, operations
ME	-0.268	NEUTRAL	18	DETERIORATING	regulatory, financial_health, earnings
MJM	-0.267	NEUTRAL	19	IMPROVING	regulatory, earnings, financial_health
AQ	-0.264	NEUTRAL	16	IMPROVING	earnings, regulatory, financial_health

ST	-0.262	NEUTRAL	27	DETERIORATING	regulatory, financial_health, earnings
RCAO	-0.261	NEUTRAL	15	DETERIORATING	earnings, regulatory, financial_health
TJI	-0.259	NEUTRAL	20	IMPROVING	earnings, management, regulatory
PFH	-0.239	NEUTRAL	15	IMPROVING	regulatory, financial_health, earnings
SMN	-0.237	NEUTRAL	21	IMPROVING	earnings, management, financial_health
TUET	-0.237	NEUTRAL	16	IMPROVING	earnings, regulatory, financial_health
GU	-0.235	NEUTRAL	26	DETERIORATING	operations, earnings, regulatory
PQT	-0.235	NEUTRAL	19	STABLE	financial_health, earnings, operations
CXW	-0.232	NEUTRAL	17	DETERIORATING	earnings, regulatory, market_share
ML	-0.232	NEUTRAL	28	IMPROVING	regulatory, earnings, management
BNTH	-0.226	NEUTRAL	28	IMPROVING	financial_health, regulatory, operations
DV	-0.211	NEUTRAL	15	IMPROVING	regulatory, growth, earnings
GUB	-0.211	NEUTRAL	25	IMPROVING	earnings, regulatory, growth
VQH	-0.205	NEUTRAL	26	STABLE	regulatory, earnings, financial_health
ANLD	-0.197	NEUTRAL	24	IMPROVING	earnings, regulatory, management
NVZ	-0.195	NEUTRAL	22	STABLE	earnings, regulatory, growth
DFL	-0.193	NEUTRAL	16	IMPROVING	financial_health, earnings, regulatory
ZKD	-0.148	NEUTRAL	18	IMPROVING	financial_health, earnings, operations
CNF	-0.139	NEUTRAL	16	IMPROVING	earnings, operations, management
XD	-0.137	NEUTRAL	15	DETERIORATING	earnings, regulatory, management
NQ	-0.121	NEUTRAL	21	DETERIORATING	regulatory, earnings, growth

## Detailed Asset Analysis

### Asset: ABH

**Sector:** Materials

**Current Price:** \$41.81

**Market Cap:** \$2.96B

**Risk Rating:** RED

**Risk Metrics:**

- Volatility: 31.9%
- Maximum Drawdown: -38.3%
- Beta: -0.03
- Sharpe Ratio: -0.59
- RSI: 33.0

**Performance:**

- 1-Month Return: -17.7%
- 3-Month Return: -35.3%
- 6-Month Return: -27.0%

**Risk Flags:**

- Extreme Drawdown, Severe Decline, Extended Decline, Poor Risk Return, Momentum Breakdown

**Market Sentiment:**

- Sentiment Score: -0.356 (NEGATIVE)
- News Articles: 22
- Trend: IMPROVING

## **Asset: PKT**

**Sector:** Healthcare

**Current Price:** \$99.26

**Market Cap:** \$188.67B

**Risk Rating:** RED

**Risk Metrics:**

- Volatility: 28.0%
- Maximum Drawdown: -48.7%
- Beta: 0.07
- Sharpe Ratio: -2.06
- RSI: 4.7

**Performance:**

- 1-Month Return: -22.4%
- 3-Month Return: -26.4%
- 6-Month Return: -37.3%

**Risk Flags:**

- Extreme Drawdown, Severe Decline, Extended Decline, Poor Risk Return, Momentum Breakdown

**Market Sentiment:**

- Sentiment Score: -0.295 (NEUTRAL)
- News Articles: 22
- Trend: DETERIORATING

## **Asset: GU**

**Sector:** Real Estate

**Current Price:** \$143.91

**Market Cap:** \$285.05B

**Risk Rating:** RED

**Risk Metrics:**

- Volatility: 39.9%
- Maximum Drawdown: -41.9%
- Beta: -0.15
- Sharpe Ratio: -1.23
- RSI: 17.9

**Performance:**

- 1-Month Return: -14.1%
- 3-Month Return: -27.3%
- 6-Month Return: -10.4%

**Risk Flags:**

- Extreme Drawdown, Extended Decline, Poor Risk Return, Momentum Breakdown

**Market Sentiment:**

- Sentiment Score: -0.235 (NEUTRAL)
- News Articles: 26
- Trend: DETERIORATING

## **Asset: BNTH**

**Sector:** Energy

**Current Price:** \$60.53

**Market Cap:** \$42.25B

**Risk Rating:** RED

**Risk Metrics:**

- Volatility: 28.8%

- Maximum Drawdown: -45.1%
- Beta: -0.05
- Sharpe Ratio: -1.14
- RSI: 30.1

**Performance:**

- 1-Month Return: -13.4%
- 3-Month Return: -34.1%
- 6-Month Return: -38.5%

**Risk Flags:**

- Extreme Drawdown, Extended Decline, Poor Risk Return, Momentum Breakdown

**Market Sentiment:**

- Sentiment Score: -0.226 (NEUTRAL)
- News Articles: 28
- Trend: IMPROVING

## Asset: VC

**Sector:** Energy

**Current Price:** \$79.55

**Market Cap:** \$70.95B

**Risk Rating:** RED

**Risk Metrics:**

- Volatility: 47.3%
- Maximum Drawdown: -41.8%
- Beta: -0.19
- Sharpe Ratio: 0.39
- RSI: 41.8

**Performance:**

- 1-Month Return: -13.6%
- 3-Month Return: -28.8%
- 6-Month Return: -24.2%

**Risk Flags:**

- High Volatility, Extreme Drawdown, Extended Decline, Momentum Breakdown

**Market Sentiment:**

- Sentiment Score: -0.377 (NEGATIVE)
- News Articles: 18
- Trend: DETERIORATING

## Recommendations

Based on the comprehensive risk analysis, the following recommendations are provided:

**Immediate Actions (RED-flagged assets):**

1. Consider reducing position sizes for 71 high-risk assets
2. Implement stop-loss orders to limit further downside exposure
3. Review fundamental analysis for potential divestiture candidates
4. Monitor daily price movements and news flow closely

**Medium-term Actions (YELLOW-flagged assets):**

1. Conduct deeper due diligence on 0 medium-risk assets
2. Consider hedging strategies for positions with high volatility
3. Review correlation with overall portfolio risk
4. Set up enhanced monitoring and alerts

**Portfolio-level Recommendations:**

1. Diversify across sectors to reduce concentration risk
2. Consider alternative investments to reduce correlation
3. Implement systematic risk management framework
4. Schedule monthly portfolio risk reviews

**Sentiment-based Actions:**

1. Monitor news flow for 36 assets with negative sentiment
2. Consider contrarian opportunities if fundamentals remain strong
3. Assess impact of market sentiment on price movements
4. Review analyst coverage and institutional positioning

## Appendix

### Methodology

This risk analysis employs a four-stage pipeline methodology:

- Stage 1 - Data Ingestion:** • Historical price data (252 trading days) • Trading volume information • Market capitalization data • Sector classifications
- Stage 2 - Core Analysis:** • Volatility calculation (annualized) • Maximum drawdown analysis • Beta coefficient estimation • Risk-adjusted return metrics (Sharpe ratio) • Technical indicators (RSI) • Rule-based risk flagging system
- Stage 3 - Sentiment Analysis:** • News article collection (12-month lookback) • Natural language processing for sentiment scoring • Trend analysis and confidence metrics • Key theme extraction
- Stage 4 - Report Generation:** • Comprehensive risk assessment compilation • Visual data presentation • Actionable recommendations • Professional PDF report output

### Risk Assessment Thresholds

**RED Flag Thresholds:** • Volatility > 40% (annualized) • Maximum drawdown < -20% • Volume decline > 50% • 1-month price decline > 15% **YELLOW Flag Thresholds:** • Volatility > 25% (annualized) • Maximum drawdown < -10% • Volume decline > 30% • Multiple warning indicators present **Sentiment Thresholds:** • Negative sentiment: Score < -0.3 • Positive sentiment: Score > 0.3 • Neutral sentiment: -0.3 ≤ Score ≤ 0.3

#### Report Generation Details:

- Generated: 2025-10-14 14:01:23
- Analysis Period: 12 months
- Total Assets Analyzed: 100
- Pipeline Version: 1.0