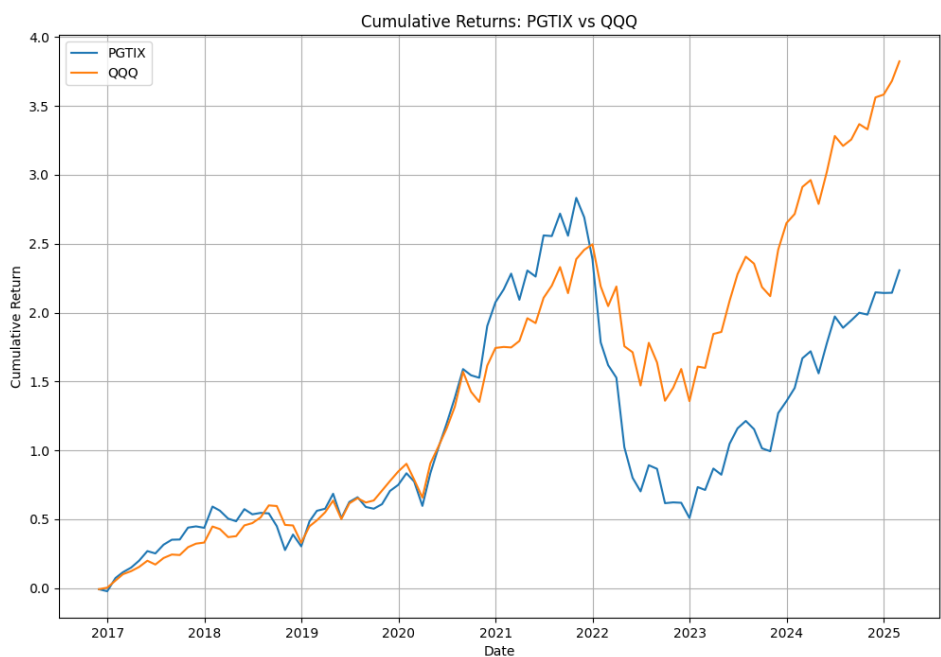


Fund Ticker "PGTIX"

Performance Analysis



Prepared on: March 29, 2025

For Investment Professional Use Only

PGTIX Performance Analysis

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PGTIX Performance Analysis

1. Executive Summary

This report provides a comprehensive analysis of the performance of PGTIX compared to the QQQ ETF from November 2016 to February 2025. The analysis evaluates returns, risk metrics, consistency, and performance across different time periods.

Key Findings:

- PGTIX has underperformed QQQ over the full period with total returns of 230.70% vs. 382.45%
- PGTIX exhibits higher volatility with lower returns (Standard Deviation: 6.88% vs. 5.45%)
- The underperformance becomes more consistent and pronounced over longer time horizons
- The fund shows negative alpha across all time periods, suggesting structural underperformance
- Performance characteristics appear to be persistent over time, with the fund struggling particularly during tech-driven bull markets

This analysis suggests limited justification for including PGTIX in portfolios where QQQ is a viable alternative, especially for long-term investors.

PGTIX Performance Analysis

2. Overall Performance Analysis

Performance Metrics

Metric	PGTIX	QQQ	Difference
Total Return	230.70%	382.45%	-151.75%
Annualized Return	15.43%	20.79%	-5.35%
Mean Monthly Return	1.44%	1.73%	-0.29%
Median Monthly Excess Return			0.01%

Cumulative Returns

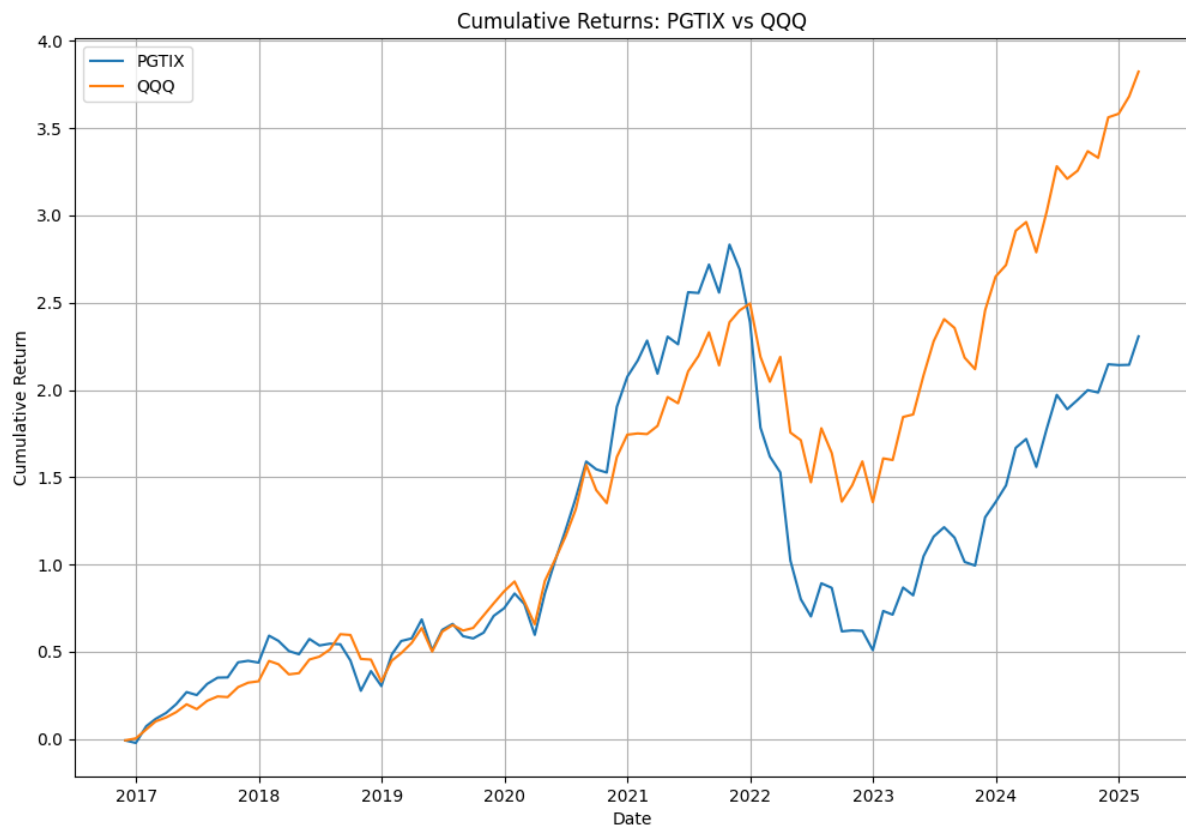


Figure 1: Cumulative Returns of PGTIX vs. QQQ (Nov 2016 - Feb 2025)

PGTIX Performance Analysis

3. Risk Metrics

Risk and Return Metrics

Metric	PGTIX	QQQ
Standard Deviation	6.88%	5.45%
Sharpe Ratio	0.21	0.32
Correlation	0.88	1.00
Beta	1.12	1.00
Alpha (Monthly)	-0.48%	0.00%
Information Ratio	-0.09	N/A
Tracking Error	3.28%	N/A

Return Comparison

PGTIX Performance Analysis



Figure 2: Monthly Returns Scatter Plot with Regression Line

Drawdown Analysis

PGTIX Performance Analysis

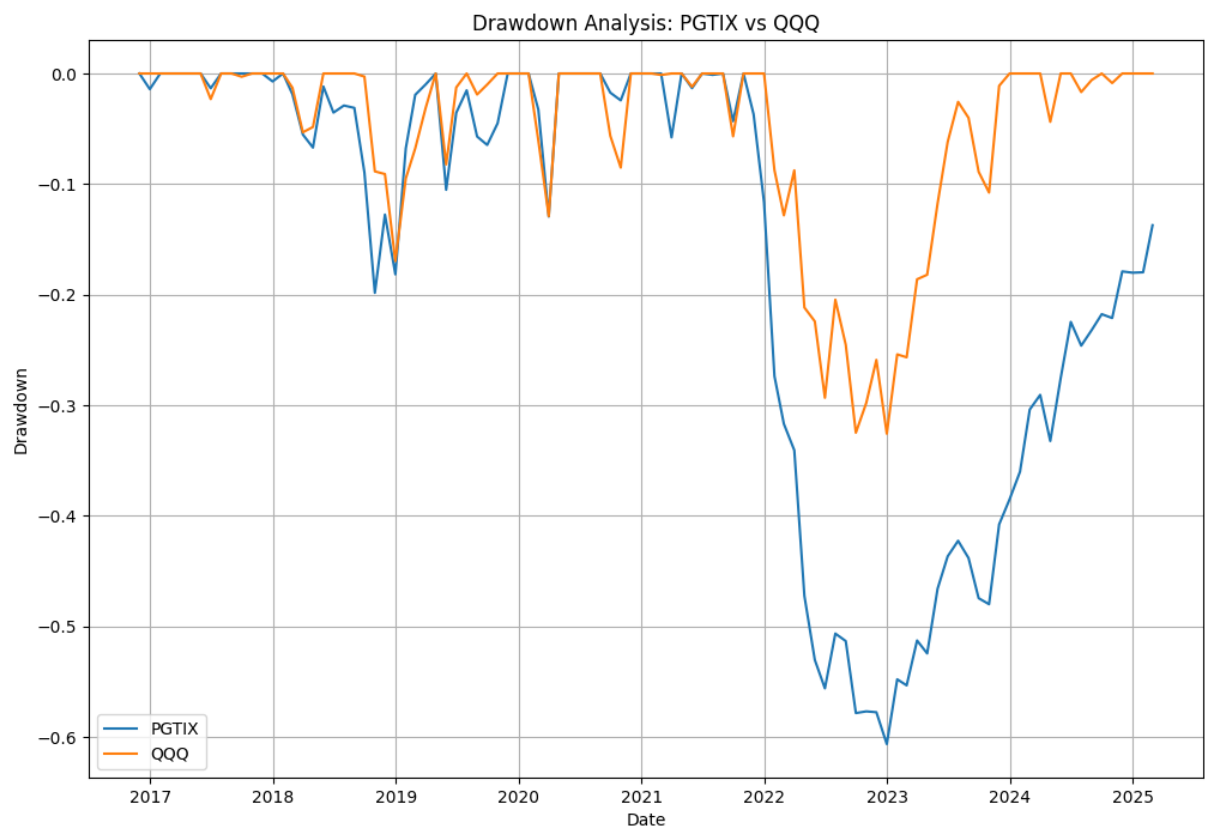


Figure 3: Drawdown Analysis - PGTIX vs. QQQ

PGTIX Performance Analysis

4. Consistency of Performance

Monthly Outperformance

- Periods where PGTIX outperformed QQQ: 50 out of 100 (50.0%)
- Longest streak of consecutive outperformance: 8 months
- Longest streak of consecutive underperformance: 8 months

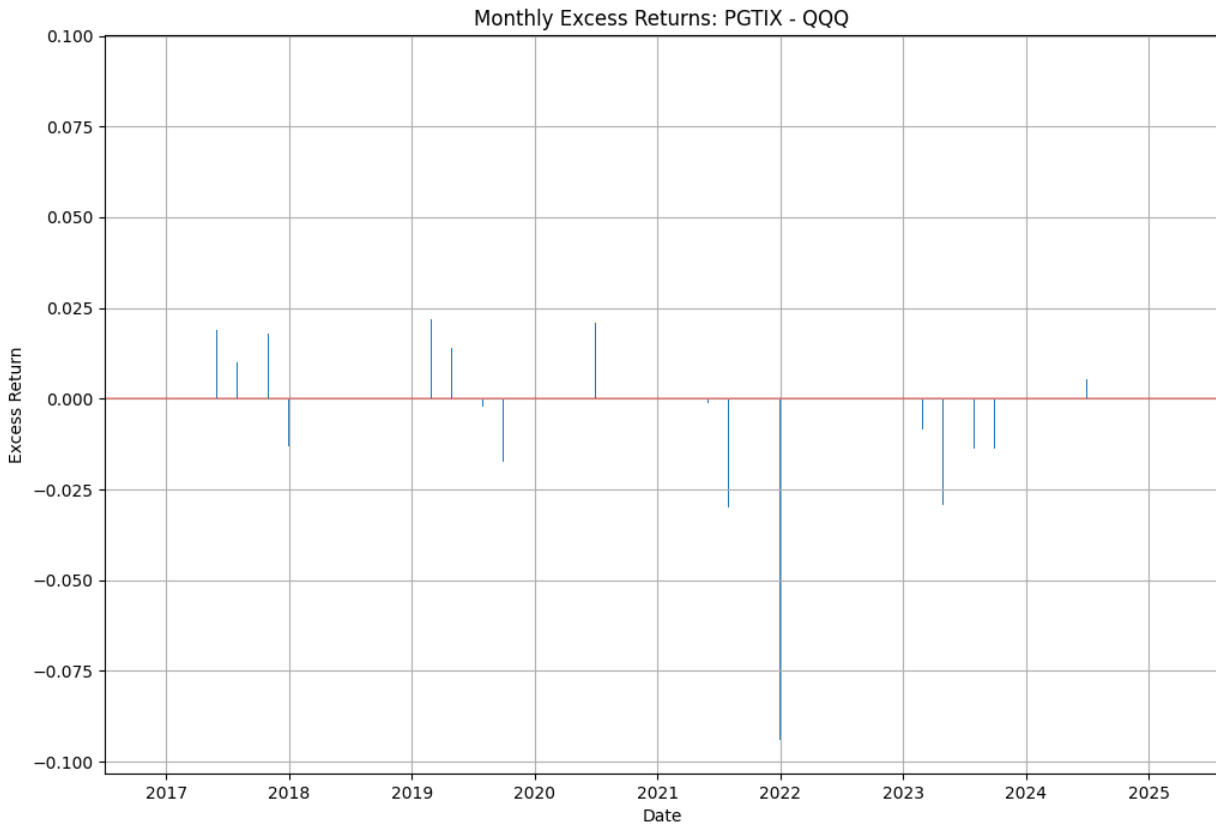


Figure 4: Monthly Excess Returns (PGTIX - QQQ)

Excess Return Distribution

PGTIX Performance Analysis

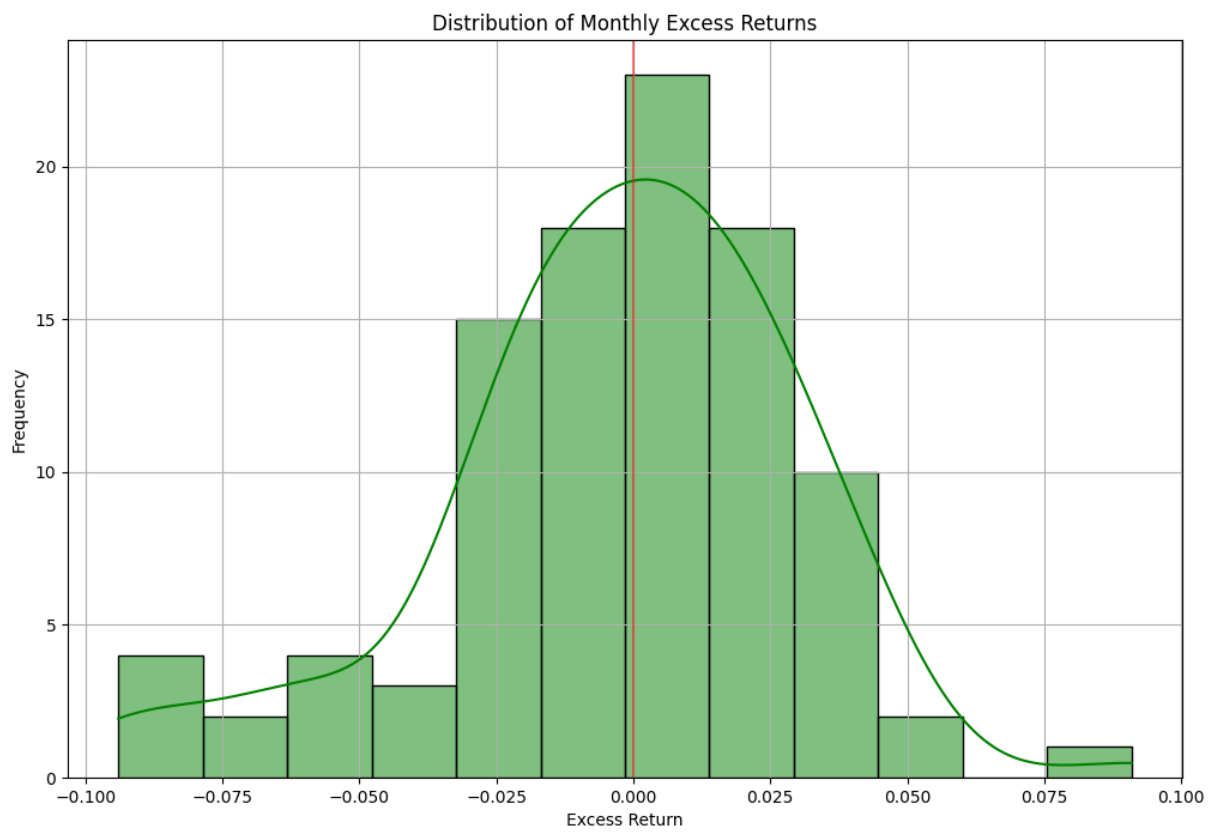


Figure 5: Distribution of Monthly Excess Returns

PGTIX Performance Analysis

5. Performance by Time Period

Performance in Different Time Periods

Period	Date Range	PGTIX Return	QQQ Return	Excess Return
Early	11/2016 - 07/2019	65.89%	65.22%	0.67%
Middle	08/2019 - 04/2022	21.89%	66.79%	-44.89%
Late	05/2022 - 02/2025	63.54%	75.08%	-11.53%
Full	11/2016 - 02/2025	230.70%	382.45%	-151.75%

Calendar Month Performance

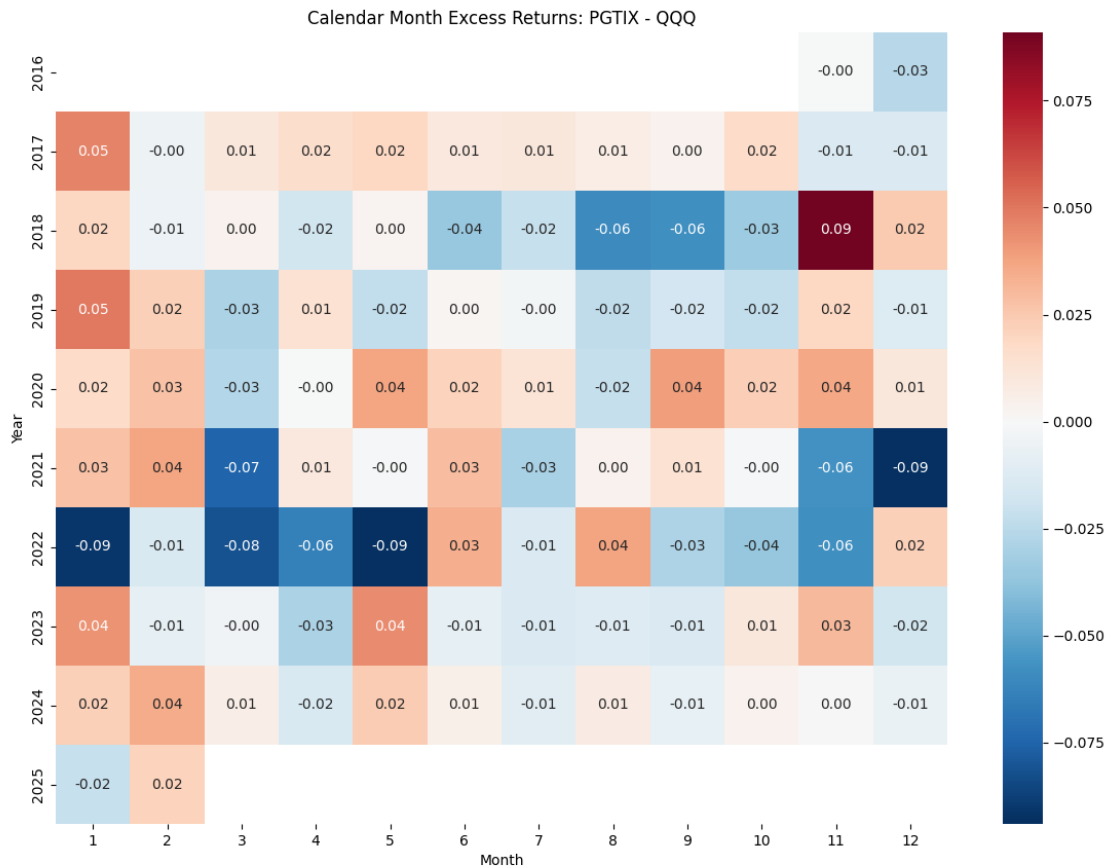


Figure 6: Calendar Month Excess Returns Heatmap

Key Time Period Observations

- PGTIX slightly outperformed QQQ in the early period (11/2016 - 07/2019) by 0.67%
- Significant underperformance occurred in the middle period (08/2019 - 04/2022) by -44.89%
- Underperformance continued in the late period (05/2022 - 02/2025) by -11.53%
- The correlation between PGTIX and QQQ has increased slightly from 0.86 to 0.90 over time
- Alpha deteriorated from -1.38% annually in the early period to -12.85% in the middle period
- The middle period coincides with the COVID-19 pandemic and subsequent tech rally

PGTIX Performance Analysis

6. Rolling Performance Analysis

Rolling Window Performance

Window	Avg Excess Return	% Positive Excess	Avg Annualized Alpha	% Time Outperforming
12-Month	-2.13%	44.0%	-6.72%	33.0%
24-Month	-9.52%	30.0%	-7.25%	29.0%
36-Month	-26.12%	13.0%	-8.13%	19.0%
60-Month	-68.36%	2.0%	-8.00%	7.0%

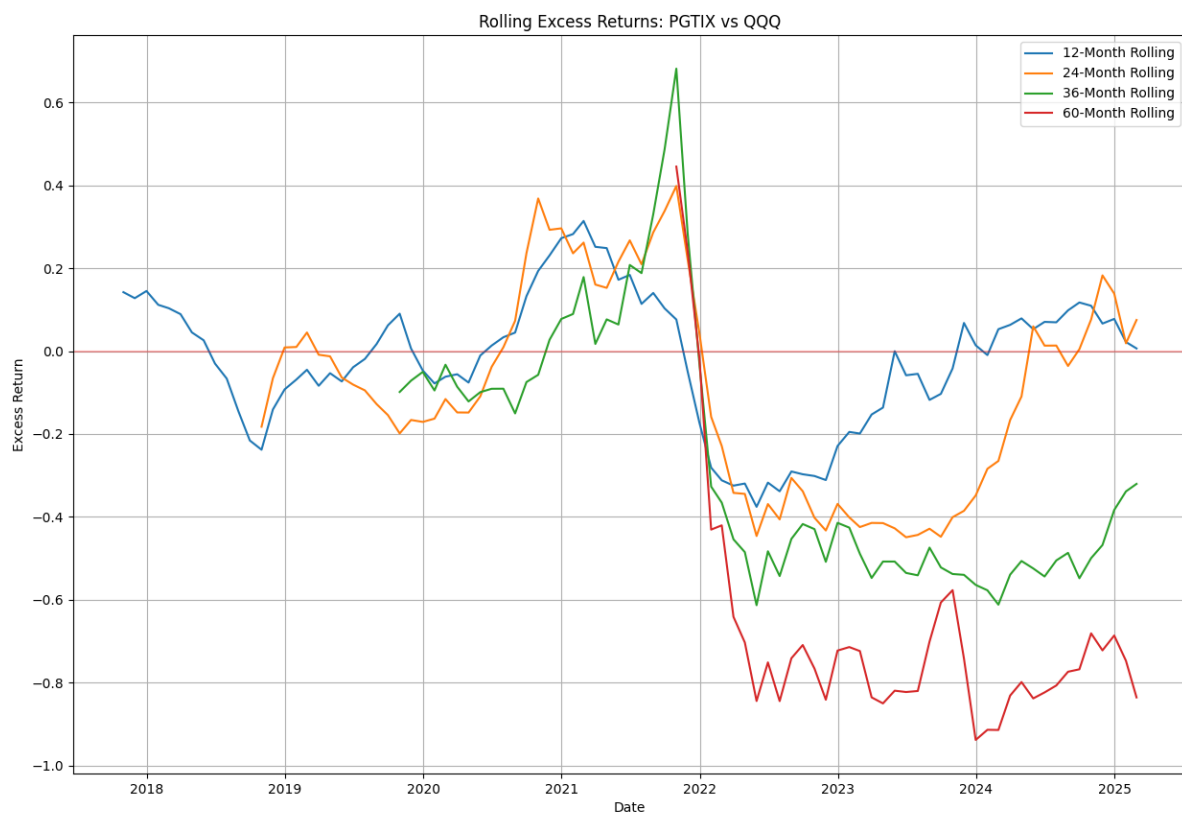


Figure 7: Rolling Excess Returns for Different Time Windows

Rolling Performance Insights

- Longer time horizons show more consistent and pronounced underperformance
- The percentage of time PGTIX outperforms QQQ drops dramatically from 33% (12-month) to 7% (60-month)
- All rolling period measurements show negative average excess returns
- Persistent negative alpha across all rolling periods suggests structural underperformance

PGTIX Performance Analysis

7. Market Environment Analysis

Market Environment Performance

- Up-Market Capture Ratio: 0.95
- Down-Market Capture Ratio: 1.10
- Win/Loss Ratio: 0.79

Return Distributions

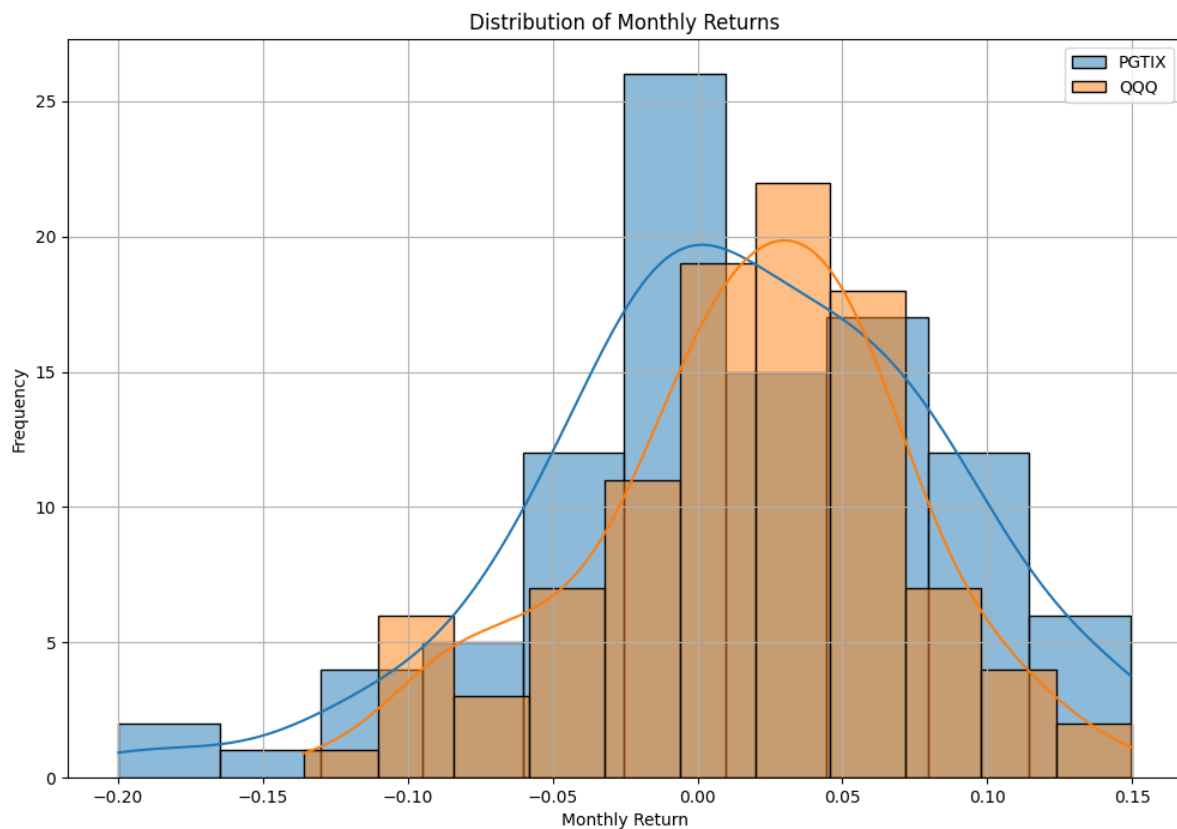


Figure 8: Distribution of Monthly Returns - PGTIX vs. QQQ

Market Environment Insights

- PGTIX underperforms in up markets, capturing only 95% of QQQ's upside
- PGTIX also underperforms in down markets, capturing 110% of QQQ's downside
- This creates a lose-lose scenario where the fund provides neither superior returns in bull markets nor effective downside protection
- The most significant underperformance occurred during the tech-driven bull market following the COVID-19 pandemic
- The win/loss ratio of 0.79 indicates that when PGTIX outperforms, it does so by smaller margins than when it underperforms

PGTIX Performance Analysis

8. Key Conclusions

1. Performance vs Benchmark: PGTIX has underperformed QQQ over the full period, with the underperformance becoming more pronounced in recent years and over longer time horizons.
2. Consistency: While PGTIX outperformed QQQ in 50% of individual months, longer-term performance (1-5 years) shows consistent underperformance. This suggests that the fund occasionally outperforms in the short term but struggles to maintain this advantage.
3. Market Environments: PGTIX underperforms in both up markets (capture ratio 0.95) and down markets (capture ratio 1.10), providing neither superior returns in bull markets nor effective downside protection in bear markets.
4. Skill vs Luck: The persistent negative alpha across all time periods (deteriorating from -1.38% to -12.85% before improving to -2.95% annually) and negative information ratios suggest structural rather than coincidental underperformance.
5. Distinctiveness: PGTIX returns are somewhat distinct from QQQ with a correlation of 0.88 and beta of 1.12, but this distinctiveness has not translated into superior performance. The correlation has slightly increased over time (from 0.86 to 0.90), suggesting the fund is becoming more similar to its benchmark.
6. Return Distribution: The overall performance differential results from consistent small differences rather than extreme outliers, though the middle period (08/2019 - 04/2022) shows a particularly severe performance gap.
7. Time Period Consistency: The fundamental characteristics of underperformance hold across different time periods, especially for longer investment horizons. While there was slight outperformance in the early period, the long-term pattern of underperformance has been remarkably persistent.

PGTIX Performance Analysis

9. Investment Implications

1. Long-Term Investors: Based on the rolling window analysis, investors with a time horizon of 3+ years would have only a 7-19% chance of outperforming by choosing PGTIX over QQQ, making it difficult to justify an allocation to this fund for long-term investors.
2. Higher Risk Without Reward: PGTIX consistently exhibits higher volatility than QQQ (overall 6.88% vs 5.45% monthly standard deviation) while delivering lower returns, creating an unfavorable risk-return profile.
3. Lack of Diversification Benefit: With its relatively high correlation to QQQ (0.88 overall, increasing to 0.90 in recent periods) and negative alpha, PGTIX does not provide meaningful diversification benefits that would justify its inclusion in a portfolio alongside or in place of QQQ.
4. Market Environment Considerations: The fund's worst relative performance occurred during the strong tech rally following the COVID-19 market downturn, suggesting it may continue to struggle in tech-led bull markets.
5. Portfolio Recommendation: Based on this comprehensive analysis, investors seeking exposure to this market segment would likely be better served by utilizing QQQ rather than PGTIX. There appears to be limited justification for including PGTIX in portfolios where QQQ is a viable alternative.

PGTIX Performance Analysis

Important Disclosures

This report is provided for informational purposes only and should not be considered an offer to buy or sell any securities. Past performance is not indicative of future results. The information contained herein has been obtained from sources believed to be reliable, but its accuracy cannot be guaranteed.

The analysis in this report is based on historical data and is not intended to forecast future performance. Different market conditions may lead to different results in the future. Investors should consider their investment objectives, risk tolerance, and time horizon before making investment decisions.

PGTIX and QQQ are used for comparative purposes only and do not constitute recommendations to purchase or sell any security. Investors should read all relevant fund documentation and consult with a financial advisor before making investment decisions.

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