



ASTORIA US QUALITY GROWTH KINGS ETF (GQQQ)

A New Way to Invest in Growth

By Nick Cerbone, Vice President of Quantitative Strategy, Astoria Portfolio Advisors

Quality Is King

The quality factor defines profitable, robust companies able to persist through varying economic cycles. Across many widely accepted metrics used to define quality, higher quality companies have historically provided a greater return on investment than their lower quality counterparts.

In terms of quality growth investing, Astoria holds three key beliefs:

- † **Returns from the growth factor tend to come with higher volatility,**
- † **The quality factor historically outperforms the broader market, and**
- † **Quantitative stock selection can be utilized to blend factors and generate alpha.**

On a quantitative basis, systematically investing in high quality companies has sustained historical success compared to lower quality companies and the broader market. In 2015, economists Eugene Fama and Kenneth French devised their quality metric - "operating profitability" - and contended that it has a high level of conviction in determining high quality companies. The pair defined operating profitability as a company's total annual revenues minus the cost of goods sold, interest expenses, and SG&A (selling, general, and administrative) expenses, all divided by the value of shareholders' equity on the firm's balance sheet. Fundamentally, this calculates the extent to which the company provides shareholders a return on equity.

When dividing the United States equity market into five quintiles based on the Fama-French operating profitability factor, it can be observed that investing in high quality companies has historically outperformed both the broader market and lower quality counterparts (Fig. 1).

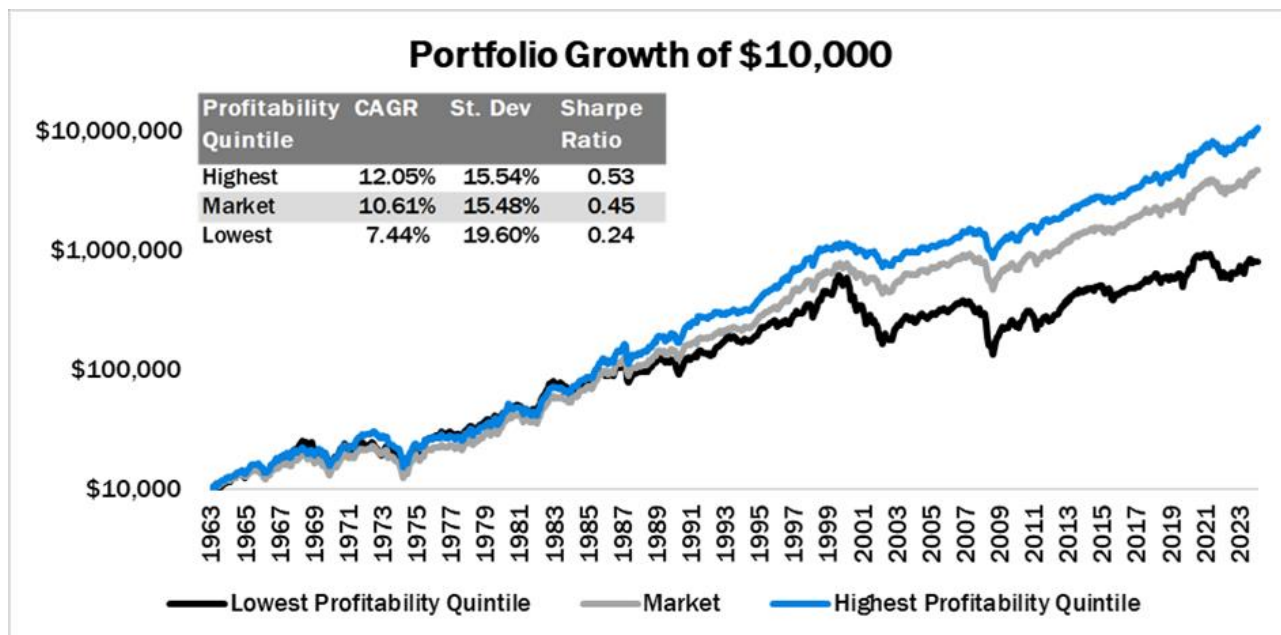


Figure 1. See appendix for additional information

Using the Fama-French library data on operating profitability from the period starting July 1963 through August 2024:

- ‡ The highest quintile of companies sorted by operating profitability delivered a compound annual growth rate (CAGR; average annualized returns) of **12.05%** with a Sharpe ratio (a measure of historical risk-adjusted return) of **0.53**. As of August 2024, the growth of a hypothetical \$10,000 investment made in July 1963 in this basket of companies would have resulted in an ending value of **\$10,543,471**.
- ‡ The broader market delivered a CAGR of **10.61%** with a Sharpe ratio of **0.45**. As of August 2024, the growth of a hypothetical \$10,000 investment made in July 1963 in the broader market would have resulted in an ending value of **\$4,768,773**.
- ‡ The lowest quintile of companies sorted by operating profitability delivered a CAGR of **7.44%** with a Sharpe ratio of **0.24**. As of August 2024, the growth of a hypothetical \$10,000 investment made in July 1963 in this basket of companies would have resulted in an ending value of **\$807,267**.

Over the given period and in terms of portfolio growth, the highest quintile of companies sorted by operating profitability has outperformed the broader market by a factor of **2.21x** and has outperformed the lowest quintile of companies sorted by operating profitability by a factor of **13.06x**. The highest quintile of companies has simultaneously produced the largest CAGR and the highest Sharpe ratio, with a risk-return profile comparable to the broader market.

Moreover, a quality framework remains appealing when observing historical risk and return statistics across factor indices. Growth has produced a comparable return to quality, but growth has also produced a higher level of risk (Fig. 2).

Factor	CAGR	St. Dev	Sharpe Ratio
Quality	8.98%	14.56%	0.54
Momentum	9.43%	16.12%	0.53
Min Vol	7.54%	11.96%	0.51
Low Size	7.97%	15.95%	0.45
Growth	8.40%	17.38%	0.45
Market	7.47%	15.41%	0.43
Dividend Yield	6.77%	13.68%	0.41
Value	6.07%	15.22%	0.34

Figure 2. See appendix for additional information

Using MSCI factor indices data from the period starting January 1999 through September 2024:

i The quality and growth factors delivered CAGRs of 8.98% and 8.40%, respectively.

- The only factor that outperformed the quality and growth factors in CAGR is the momentum factor, which outperformed the quality and growth factors by **45 basis points (bps)** and **103 bps**, respectively.
- In terms of CAGR, the quality factor outperformed all remaining factors, including the growth factor (**58 bps**), the low size factor (**101 bps**), the minimum volatility factor (**144 bps**), the dividend yield factor (**221 bps**), and the value factor (**291 bps**).
- Regarding CAGR, the quality and growth factors outperformed the broader market by **151 bps** and **93 bps**, respectively.

i The quality and growth factors generated standard deviations (historical volatility) of 14.56% and 17.38%, respectively.

- The minimum volatility factor and the dividend yield factor were the only two factors that generated a lower standard deviation than the quality factor. The minimum volatility factor

generated a standard deviation **260 bps** lower than the quality factor, while the dividend yield factor generated a standard deviation **88 bps** lower than the quality factor.

- The growth factor generated a greater standard deviation than all factors, including the momentum factor (**126 bps**), the low size factor (**153 bps**), the value factor (**216 bps**), the quality factor (**282 bps**), the dividend yield factor (**370 bps**), and the minimum volatility factor (**542 bps**).
- The quality factor generated a lower standard deviation than the broader market by **85 bps** while the growth factor generated a greater standard deviation than the broader market by **197 bps**.

i The quality and growth factors produced Sharpe ratios of 0.54 and 0.45, respectively.

- The quality factor produced a higher Sharpe ratio than all factors, including the momentum factor (by **0.01**), the minimum volatility factor (by **0.03**), the growth factor (by **0.09**), the low size factor (by **0.9**), the dividend yield factor (by **0.13**), and the value factor (by **0.20**).
- The quality and growth factors produced higher Sharpe ratios than the broader market by **0.11** and **0.02**, respectively.

The growth factor produced a comparable CAGR to the quality factor but generated a higher standard deviation than the quality factor.

Furthermore, despite the observation that the minimum volatility factor and dividend yield factor produced lower standard deviations than the quality factor, they each delivered lower compound annual growth rates. The value factor produced comparable risk levels to the quality factor as tracked by its standard deviation but also delivered a lower CAGR.

Ultimately, the quality factor produced the highest Sharpe ratio of all factor indices, making it attractive from a risk-adjusted return standpoint on a factor-relative basis. Despite its comparable CAGR to the quality factor, the growth factor produced the greatest standard deviation of all factor indices, demonstrating the higher level of risk that is associated with the factor.

Blending Quality And Growth

The Astoria US Quality Growth Kings ETF (GQQQ) combines the quality and growth factors. The ETF aims to participate in growth while mitigating volatility and targeting higher risk-adjusted returns by selecting

growth companies that exhibit robust quality characteristics. Blending each of the MSCI and S&P quality indices with the Nasdaq 100 Index, combining quality and growth has historically produced a higher Sharpe ratio, lower standard deviation, and comparable CAGR to the Nasdaq 100 Index alone. These combinations have also historically produced both appealing downside capture ratios (a measure of a strategy's performance in down markets relative to an index) and overall capture ratios (a measure of a strategy's ability to capture more during positive periods than it lost during negative periods, relative to an index), relative to the Nasdaq 100 Index alone (Fig. 3, Fig. 4, Fig. 5, Fig. 6).

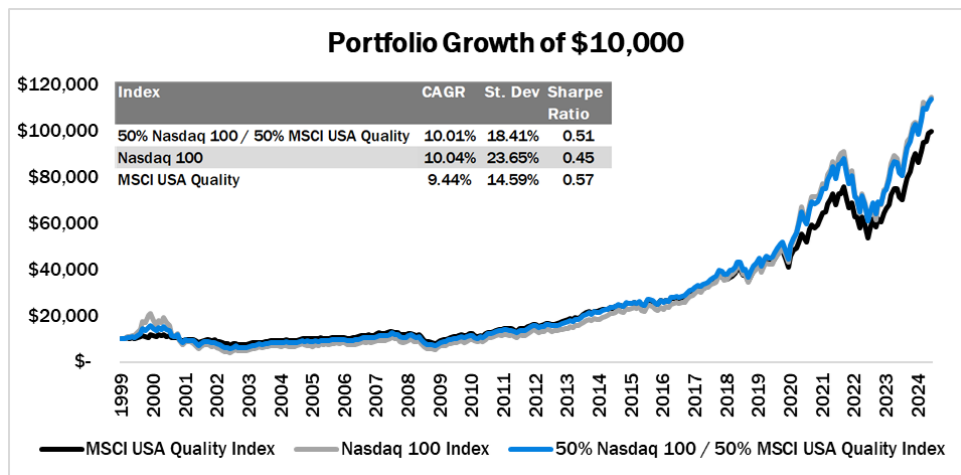


Figure 3. See appendix for additional information

Observation or Ratio	Value
# of Up Periods	181
# of Down Periods	125
Upside Capture Ratio	0.82
Downside Capture Ratio	0.77
Capture Ratio	1.07

Figure 4.

See appendix for additional information

Using MSCI USA Quality and Nasdaq 100 indices data from the period starting April 1999 through September 2024:

- ‡ The 50% MSCI USA Quality Index / 50% Nasdaq 100 Index blend delivered a CAGR of **10.01%** with a Sharpe ratio of **0.51** and a standard deviation of **18.41%**.
- ‡ The Nasdaq 100 Index delivered a CAGR of **10.04%** with a Sharpe ratio of **0.45** and a standard deviation of **23.65%**.
- ‡ Relative to the Nasdaq 100 Index, the 50% MSCI USA Quality Index / 50% Nasdaq 100 Index blend generated an upside capture ratio of **0.82**, a downside capture ratio of **0.77**, and an overall capture ratio (calculated by dividing the upside capture ratio by the downside capture ratio) of **1.07**.

Over the given period and relative to the Nasdaq 100 Index alone, the 50% MSCI USA Quality Index / 50% Nasdaq 100 Index blend has produced a higher Sharpe ratio (by **0.06**) and a lower standard deviation (**524 bps**) while maintaining a comparable CAGR (the Nasdaq 100 Index only outperformed by **3 bps**). Relative to the former, the latter also generated a downside capture ratio **less than 1** and an overall capture ratio **greater than 1**.

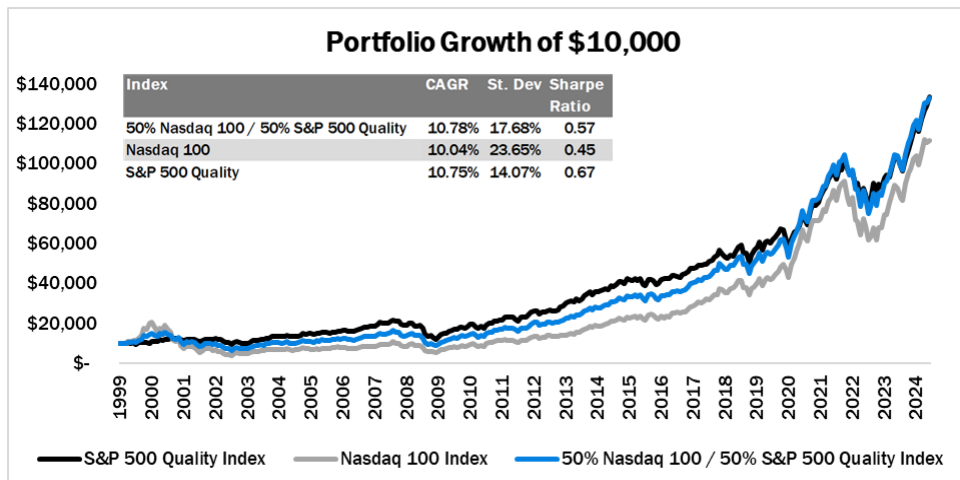


Figure 5. See appendix for additional information

Observation or Ratio	Value
# of Up Periods	181
# of Down Periods	125
Upside Capture Ratio	0.81
Downside Capture Ratio	0.72
Capture Ratio	1.12

Figure 6.

See appendix for additional information

Using S&P 500 Quality and Nasdaq 100 indices data from the period starting April 1999 through September 2024:

- ‡ The 50% S&P 500 Quality Index / 50% Nasdaq 100 Index blend delivered a CAGR of **10.78%** with a Sharpe ratio of **0.57** and a standard deviation of **17.68%**.
- ‡ The Nasdaq 100 Index delivered a CAGR of **10.04%** with a Sharpe ratio of **0.45** and a standard deviation of **23.65%**.
- ‡ Relative to the Nasdaq 100 Index, the 50% S&P 500 Quality Index / 50% Nasdaq 100 Index blend generated an upside capture ratio of **0.81**, a downside capture ratio of **0.72**, and an overall capture ratio (calculated by dividing the upside capture ratio by the downside capture ratio) of **1.12**.

Over the given period and relative to the Nasdaq 100 Index alone, the 50% S&P 500 Quality Index / 50% Nasdaq 100 Index blend has produced a higher Sharpe ratio (by **0.12**) and a lower standard deviation (**597 bps**) while maintaining a comparable CAGR (the 50% S&P 500 Quality Index / 50% Nasdaq 100 Index blend outperformed by **74 bps**). Relative to the former, the latter also generated a downside capture ratio **less than 1** and an overall capture ratio **greater than 1**.

As demonstrated by their higher Sharpe ratios, blending each of the MSCI and S&P quality indices with the Nasdaq 100 Index has historically delivered more attractive risk-adjusted returns than the Nasdaq 100 index alone. Observable from their historical standard deviations, downside capture ratios, and overall capture ratios, blending quality and growth using the above indices has also delivered lower levels of historical volatility and downside protection relative to growth alone, without sacrificing significant upside return potential.

Large-Cap And Mid-Cap

The Astoria US Quality Growth Kings ETF (GQQQ) invests in both US large-cap and mid-cap stocks. Large-cap stocks have historically produced appealing risk-return metrics. Additionally, exposure to mid-cap stocks has historically provided more stability than small-caps, with the potential for greater growth than large-caps. Using both MSCI and Russell indices, mid-caps have historically produced a greater average annual return than large-caps while maintaining a comparable Sharpe ratio (Fig. 7, Fig. 8).

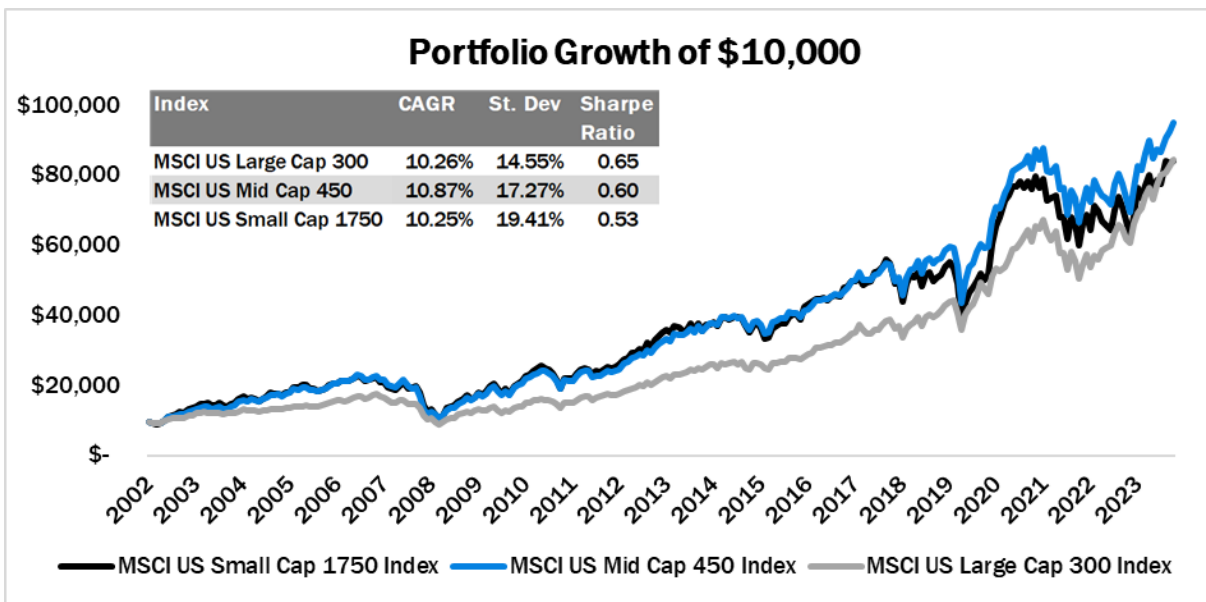


Figure 7. See appendix for additional information

Using the MSCI indices data from the period starting December 2002 through September 2024:

- † The MSCI US Mid Cap 450 Index delivered a CAGR of **10.87%** with a Sharpe ratio of **0.60**. As of September 2024, the growth of a hypothetical \$10,000 investment made in December 2002 in this index would have resulted in an ending value of **\$95,118**.
- † The MSCI US Large Cap 300 Index delivered a CAGR of **10.26%** with a Sharpe ratio of **0.65**. As of September 2024, the growth of a hypothetical \$10,000 investment made in December 2002 in this index would have resulted in an ending value of **\$84,328**.
- † The MSCI US Small Cap 1750 Index delivered a CAGR of **10.25%** with a Sharpe ratio of **0.53**. As of September 2024, the growth of a hypothetical \$10,000 investment made in December 2002 in this basket of companies would have resulted in an ending value of **\$84,174**.

Over the given period and in terms of portfolio growth, the MSCI US Mid Cap 450 Index has outperformed both the MSCI US Large Cap 300 Index by a factor of **1.13x** and the MSCI US Small Cap 1750 Index by a

factor of **1.13x**. The MSCI US Mid Cap 450 Index has simultaneously produced a comparable Sharpe ratio to the MSCI US Large Cap 300 Index and a lower standard deviation than the MSCI US Small Cap 1750 Index.

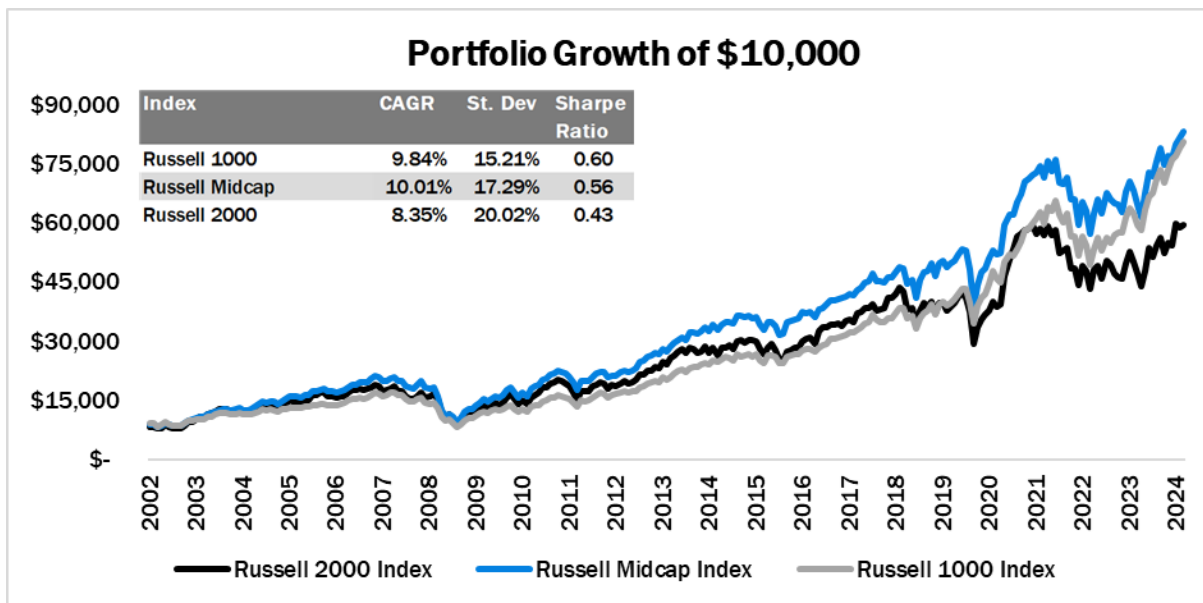


Figure 8. See appendix for additional information

Using the Russell indices data from the period starting July 2002 through September 2024:

- † The Russell Midcap Index delivered a CAGR of **10.01%** with a Sharpe ratio of **0.56**. As of September 2024, the growth of a hypothetical \$10,000 investment made in July 2002 in this index would have resulted in an ending value of **\$83,483**.
- † The Russell 1000 Index (large-caps) delivered a CAGR of **9.84%** with a Sharpe ratio of **0.60**. As of September 2024, the growth of a hypothetical \$10,000 investment made in July 2002 in this index would have resulted in an ending value of **\$80,670**.
- † The Russell 2000 Index (small-caps) delivered a CAGR of **8.35%** with a Sharpe ratio of **0.43**. As of September 2024, the growth of a hypothetical \$10,000 investment made in July 2002 in this index would have resulted in an ending value of **\$59,535**.

Over the same period and in terms of portfolio growth, the Russell Midcap Index has outperformed both the large-cap index (Russell 1000) by a factor of **1.03x** and the small-cap index (Russell 2000) by a factor of **1.40x**. Moreover, the Russell Midcap index has simultaneously produced a comparable Sharpe ratio to the large-cap index (Russell 1000) and a lower standard deviation than the small-cap index (Russell 2000).

Ultimately, both the MSCI US Mid Cap 450 Index and the Russell Mid Cap Index have outperformed their respective large-cap counterparts in terms of CAGR while producing similar risk-return profiles, as demonstrated by their respective Sharpe ratios. Hence, blending large-cap exposures with mid-cap exposures may capture the potential for greater growth at appealing risk levels.

Astoria's Approach

The Astoria US Quality Growth Kings ETF (GQQQ) selects companies to invest in based on rigorous screening criteria. Before determining the 100 stocks that will ultimately comprise the strategy, the team at Astoria selects approximately 800 stocks from all primary listings in the United States. These 800 stocks must have a free float share percentage of at least 25%, a current market capitalization of greater than \$5 billion, and a 6-month trailing average daily trading volume of at least \$50 million (Fig. 9).

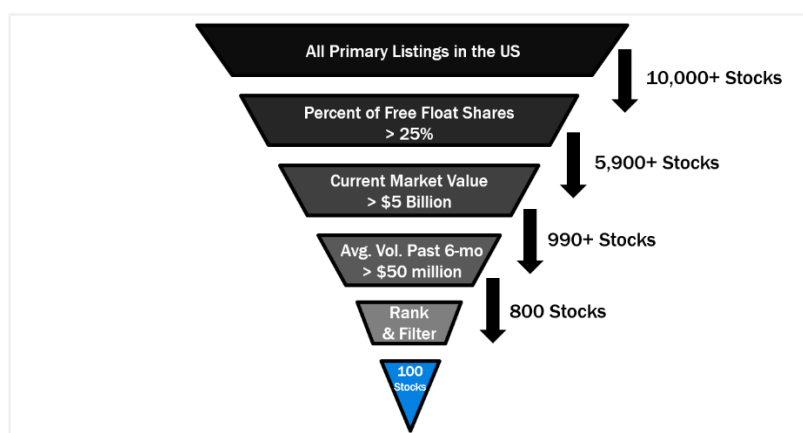


Figure 9.

The purpose of this initial screening is to filter out companies with small and/or shallow public markets (low free float percentage), more volatile small-cap companies, and stocks with a low trading volume. From this starting universe, stocks are picked in all 11 Global Industry Classification Standard (GICS) sectors found across the equity market, using metrics corresponding to quality, growth, and robustness.

The metrics defining the factor are sector relative; in other words, the metrics that have best historically defined quality for that sector are the ones used. Prior to ranking, each metric is adjusted by the respective sector's median on a sector-by-sector basis: the median value of each metric is calculated, and that value is subtracted from the original metric. The adjusted metric is then used in the respective ranking process.

Ranking is calculated in deciles and is carried out across the whole universe, as well as across sectors. The top-ranked stocks are selected in a sector-optimized fashion, relative to the broader US growth universe.

Portfolio Characteristics

The following is a breakdown of the Astoria US Quality Growth Kings ETF's (GQQQ) key portfolio characteristics. As seen below, the portfolio offers exposure to a diverse basket of stocks in terms of market capitalization (Fig. 10).

Market Cap Range (\$MM)		Number of Stocks
227,898	– 3,459,245	10
161,331	– 227,898	10
87,191	– 161,331	10
73,019	– 87,191	10
51,037	– 73,019	10
36,904	– 51,037	10
24,118	– 36,904	10
14,232	– 24,118	10
9,935	– 14,232	10
6,796	– 9,935	10

Figure 10.

GQQQ is also exposed to a variety of equity sectors optimized against the broader US growth universe (Fig. 11).

Sector	Weight
Information Technology	45%
Communication Services	14%
Consumer Discretionary	13%
Health Care	8%
Consumer Staples	6%
Industrials	5%
Financials	4%
Materials	2%
Utilities	2%
Energy	1%
Real Estate	1%

Figure 11. For current holdings, click [here](#)

Conclusion: Why Invest In GQQQ?

The Astoria US Quality Growth Kings ETF invests in up to 100 US quality growth stocks. GQQQ's investment process narrows down the universe of US stocks using minimum percentage of free float shares, market capitalization, and average trading volume constraints.

GQQQ uses quantitative screens to rank such stocks according to their quality, valuation, dividend potential, and growth metrics relative to the median of their sector to provide a single security focused exclusively on 100 companies.

GQQQ aims to participate in growth while mitigating volatility and targeting higher risk-adjusted returns by selecting growth companies that exhibit robust quality characteristics. The ETF can be used as a US large cap growth supplement or alternative.

The Story of Royalty

The Astoria US Quality Growth Kings ETF seeks long-term capital appreciation by investing in 100 US quality growth stocks.

Astoria Portfolio Advisors is an investment manager specializing in research-driven, cross-asset, ETF, and quantitative equity portfolio construction. Astoria delivers portfolio solutions, research, and sub-advisory services to advisors, corporations, and institutional clients. The firm manages \$1.9 billion in assets via sub-advisory, outsourced CIO services, and ETFs. Astoria's strategies are quantitatively constructed, globally diversified, and multi-asset, or serve as a complement to such.

Astoria has utilized quality ETFs for its core equity exposure since the company's founding in 2017. As experts in constructing factor-based stock portfolios, we are presenting the opportunity to redefine investors' core equity exposure by combining quality and growth via the Astoria US Quality Growth Kings ETF (GQQQ).

Definition Of Terms

Operating Profitability: Operating profitability, according to Fama and French (2015) is calculated using all accounting numbers from the end of the previous fiscal year. It is defined by the annual revenues minus the cost of goods sold, interest expenses, selling, general, and administrative expenses divided by the book equity.

Compound Annual Growth Rate (CAGR): Compound annual growth rate is the mean annual growth rate of an investment over a specified period of time longer than one year. It is the rate of return that would be required for an investment to grow from its beginning balance to its ending balance, assuming the profits were reinvested at the end of each period of the investment's life span.

Standard Deviation (St. Dev): The standard deviation of a portfolio measures how much the investment returns deviate from the mean of the probability distribution of investments. Put simply, it tells investors how much the investment will deviate from its expected return. As such, investors can use this metric to help determine an investment or portfolio's annual return by considering its historical volatility.

Sharpe Ratio: The Sharpe Ratio is a risk-adjusted measure calculated using annualized standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the historical risk-adjusted performance.

Upside Capture Ratio: Upside Capture Ratio measures a strategy's performance in up markets relative to an index. A value over 1 indicates that an investment has outperformed the index during periods of positive returns for the index.

Downside Capture Ratio: Downside capture ratio measures a strategy's performance in down markets relative to an index. A value of less than 1 indicates that an investment has lost less than an index during periods of negative returns for the index.

Capture Ratio: A combination of the Upside Capture Ratio and Downside Capture Ratio, calculated by dividing the two with the former as the numerator and the latter as the denominator. A Capture Ratio above 1 indicates the strategy captured more during positive periods than it lost during negative periods, relative to an index.

Definition Of Indices

MSCI USA Growth Index: The MSCI USA Growth Index captures large and mid-cap securities exhibiting overall growth style characteristics in the US. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.

MSCI USA Quality Index: The MSCI USA Quality Index is based on the MSCI USA Index, its parent index, which includes large and mid-cap stocks in the US equity market. The index aims to capture the performance of quality growth stocks by identifying stocks with high quality scores based on three main fundamental variables: high return on equity (GQQQ), stable year-over-year earnings growth and low financial leverage. The MSCI Quality Indexes complement existing MSCI Factor Indexes and can provide an effective diversification role in a portfolio of factor strategies.

MSCI USA Value Index: The MSCI USA Value Index captures large and mid-cap US securities exhibiting overall value style characteristics. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

MSCI USA Momentum Index: The MSCI USA Momentum Index is based on MSCI USA Index, its parent index, which captures large and mid-cap stocks of the US market. It is designed to reflect the performance of an equity momentum strategy by emphasizing stocks with high price momentum, while maintaining reasonably high trading liquidity, investment capacity and moderate index turnover.

MSCI USA High Dividend Yield Index: The MSCI USA High Dividend Yield Index is based on the MSCI USA Index, its parent index, and includes large and mid-cap stocks. The index is designed to reflect the performance of equities in the parent index (excluding REITs) with higher dividend C6income and quality characteristics than average dividend yields that are both sustainable and persistent. The index also applies quality screens and reviews 12-month past performance to omit stocks with potentially deteriorating fundamentals that could force them to cut or reduce dividends.

MSCI USA Minimum Volatility Index: The MSCI USA Minimum Volatility (USD) Index aims to reflect the performance characteristics of a minimum variance strategy applied to the large and mid-cap USA equity universe. The index is calculated by optimizing the MSCI USA Index, its parent index, in USD for the lowest absolute risk (within a given set of constraints). Historically, the index has shown lower beta and volatility characteristics relative to the MSCI USA Index.

MSCI USA Size Tilt Index: The MSCI World Size Tilt Index is based on MSCI World, its parent index, which includes large and mid-cap stocks across 23 Developed Markets (DM) countries*. It aims to reflect the performance of a low size strategy with relatively high investment capacity. The indexes are created by including all the constituents in the parent index and weighting the constituents using the square root of their market capitalization weight.

MSCI USA Index: The MSCI USA Index is designed to measure the performance of the large and mid-cap segments of the US market. With 627 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the US.

Nasdaq 100 Index: The Nasdaq 100 Index includes 100 of the largest domestic and international non-financial companies listed on The Nasdaq Stock Market based on market capitalization. The Index reflects companies across major industry groups including computer hardware and software, telecommunications, retail/wholesale trade and biotechnology. It does not contain securities of financial companies including investment companies.

S&P 500 Quality Index: The S&P 500® Quality Index is designed to track high quality stocks in the S&P 500 by quality score, which is calculated based on return on equity, accruals ratio, and financial leverage ratio. Companies are weighted by a product of the quality score assigned and the float-adjusted market cap.

MSCI US Large Cap 300 Index: The MSCI US Large Cap 300 Index is designed to measure the performance of the large cap segment of the US equity market. The index represents approximately 71% of the free float-adjusted market capitalization in the US equity market.

MSCI US Mid Cap 450 Index: The MSCI US Mid Cap 450 Index is comprised of the next largest 450 companies in terms of market capitalization of the US equity market and designed to measure the performance of the mid cap segment. The index represents approximately 16% of the free float-adjusted market capitalization of the US equity market.

MSCI US Small Cap 1750 Index: The MSCI US Small Cap 1750 Index is comprised of the remaining smallest 1,750 companies in the US Investable Market 2500 Index of the US equity market and designed to measure the performance of the small cap segment. The index represents approximately 11.5% of the free float-adjusted market capitalization of the US equity market.

Russell 1000 Index: The Russell 1000® Index measures the performance of the large-cap segment of the US equity universe. It is a subset of the Russell 3000® Index and includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership. The Russell 1000 represents approximately 93% of the US market. The Russell 1000® Index is constructed to provide a comprehensive and unbiased barometer for the large-cap segment and is completely reconstituted annually to ensure new and growing equities are included.

Russell Midcap Index: The Russell Midcap® Index measures the performance of the mid-cap segment of the US equity universe. The Russell Midcap Index is a subset of the Russell 1000® Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership. The Russell Midcap® Index represents approximately 27% of the total market capitalization of the Russell 1000® companies, as of the most recent reconstitution. The Russell Midcap Index is constructed to provide a comprehensive and unbiased barometer for the mid-cap segment. The index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true midcap opportunity set.

Russell 2000 Index: The Russell 2000® Index measures the performance of the small-cap segment of the US equity universe. The Russell 2000 Index is a subset of the Russell 3000® Index representing approximately 7% of the total market capitalization of that index, as of the most recent reconstitution. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 2000 is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set.

Appendix

[Fig. 1] Source: Kenneth French Data Library, Astoria Portfolio Advisors. Data from July 1963, through August 2024, for which operating profitability returns were available. Chart represents the performance of a hypothetical \$10,000 investment in highest and lowest quintiles and the market from July 1963, through August 2024, and uses monthly returns. Compound Annual Growth Rate (CAGR), Standard Deviation (St. Dev) and Sharpe Ratio are all annualized. Past performance is not indicative of future results.

[Fig. 2] Source: FactSet, Astoria Portfolio Advisors. Data from January 1999, through September 2024. Performance calculations use net monthly returns. Compound Annual Growth Rate (CAGR), Standard Deviation (St. Dev) and Sharpe Ratio are all annualized. For Growth, Quality, Value, Momentum, Dividend Yield, Minimum Volatility (Min Vol), Low Size, and Market, the following indices were used in respective order: MSCI USA Growth Index, MSCI USA Quality Index, MSCI USA Value Index, MSCI USA Momentum Index, MSCI USA High Dividend Yield Index, MSCI USA Minimum Volatility Index, MSCI USA Size Tilt Index, MSCI USA Index.

[Fig. 3] Source: FactSet, Astoria Portfolio Advisors. Data from January 1999, through September 2024. Chart represents the performance of a hypothetical \$10,000 investment in both indices since January 1999, through September 2024, and uses net monthly returns. Compound Annual Growth Rate (CAGR), Standard Deviation (St. Dev) and Sharpe Ratio are all annualized. Past performance is not indicative of future results. Indices are typically not available for direct investment, are unmanaged, and do not incur fees or expenses.

[Fig. 4] Source: FactSet, Astoria Portfolio Advisors. Data from December 2002, through September 2024. Chart represents the performance of a hypothetical \$10,000 investment in all three indices since December 2002, through September 2024, and uses net monthly returns. For large-cap, mid-cap, and small-cap, the following MSCI indices were used in respective order: MSCI US Large Cap 300 Index, MSCI US Mid Cap 450 Index, MSCI US Small Cap 1750 Index. Compound Annual Growth Rate (CAGR), Standard Deviation (St. Dev) and Sharpe Ratio are all annualized. Past performance is not indicative of future results. Indices are typically not available for direct investment, are unmanaged, and do not incur fees or expenses.

[Fig. 5] Source: FactSet, Astoria Portfolio Advisors. Data from July 2002, through September 2024. Chart represents the performance of a hypothetical \$10,000 investment in all three indices since July 2002, through September 2024, and uses net monthly returns. For large-cap, mid-cap, and small-cap, the following Russell indices were used in respective order: Russell 1000 Index, Russell Midcap Index, Russell 2000 Index. Compound Annual Growth Rate (CAGR), Standard Deviation (St. Dev) and Sharpe Ratio are all annualized. Past performance is not indicative of future results. Indices are typically not available for direct investment, are unmanaged, and do not incur fees or expenses.

[Fig. 6] Source: Astoria Portfolio Advisors.

[Fig. 7] Source: FactSet, Astoria Portfolio Advisors. Data as of September 30, 2024. Calculation of market capitalization ranges are based on deciles. Market capitalizations are represented in millions of USD.

[Fig. 8] Source: FactSet, Astoria Portfolio Advisors. Data as of September 30, 2024.

Important Information

This material must be preceded or accompanied by a prospectus. Please read the prospectus carefully before investing. The Funds' investment objectives, risks, charges and expenses must be considered carefully before investing. Click here for the GQQQ Prospectus and SAI. All fund documents can be found at www.astoriadvisorsETFs.com. A free hardcopy of any prospectus may be obtained by calling +1.215.882.9983.

The Fund is distributed by Quasar Distributors, LLC. The Fund's investment advisor is Empowered Funds, LLC which is doing business as EA Advisers.

Not FDIC/NCUA Insured | Not a Deposit | May Lose Value | No Bank Guarantee | Not Insured | Past Performance is Not Indicative of Future Returns

Principal Risks

An investment in the Fund involves risk, including those described below. There is no assurance that the Fund will achieve its investment objective. An investor may lose money by investing in the Fund. An investment in the Fund is not a bank deposit and is not insured or guaranteed by the FDIC or any government agency.

Quality Stocks Risk. Stocks included in the Fund are deemed by the Sub-Adviser to be quality stocks, but there is no guarantee that the past performance of these stocks will continue. Companies that issue these stocks may experience lower than expected returns or may experience negative growth, as well as increased leverage, resulting in lower than expected or negative returns to Fund shareholders. Many factors can affect a stock's quality and performance, and the impact of these factors on a stock or its price can be difficult to predict.

Management Risk. The Fund is actively-managed and may not meet its investment objective based on the Adviser's or Sub-Adviser's success or failure to implement investment strategies for the Fund. The success of the Fund's investment program depends largely on the investment techniques and risk analyses applied by the Sub-Adviser, including the use of quantitative models or methods. It is possible the investment techniques and risk analyses employed on behalf of the Fund will not produce the desired results.

Value-Style Investing Risk. The Sub-Adviser may be wrong in its assessment of a company's value, and the stocks the Fund owns may not reach what the Sub-Adviser believes are their true values. The market may not favor value-oriented stocks and may not favor equities at all, which may cause the Fund's relative performance to suffer. Value stocks can perform differently from the market as a whole and from other types of stocks. While certain value stocks may increase in value more quickly during periods of anticipated economic upturn, they may also lose value more quickly in periods of anticipated economic downturn. Furthermore, there is the risk that the factors which caused the depressed valuations are longer term or even permanent in nature, and that their valuations may fall or never rise.

Dividend-Paying Common Stock Risk. The Fund will normally receive income from dividends that are paid by issuers of the Fund's investments. The amount of the dividend payments may vary and depends on performance and decisions of the issuer. Poor performance by the issuer or other factors may cause the issuer to lower or eliminate dividend payments to investors, including the Fund. Additionally, these types of securities may fall out of favor with investors and underperform the broader market.

Quantitative Security Selection Risk. Data for some companies may be less available and/or less current than data for companies in other markets. The Sub-Adviser uses quantitative analysis, and its processes could be adversely affected if erroneous or outdated data is utilized. The securities selected using quantitative analysis could perform differently from the financial markets as a whole as a result of the characteristics used in the analysis, the weight placed on each characteristic and changes in the characteristic's historical trends. In addition, the investment analysis used in making investment decisions may not adequately consider certain factors, or may contain design flaws or faulty assumptions, any of which may result in a decline in the value of an investment in the Fund.

New Fund Risk. The Fund is new with no operating history as of the date of this Prospectus. As a result, prospective investors have no track record or history on which to base their investment decision. There can be no assurance that the Fund will grow to or maintain an economically viable size.

Cash and Cash Equivalents Risk. Holding cash or cash equivalents rather than securities or other instruments in which the Fund primarily invests, even strategically, may cause the Fund to risk losing opportunities to participate in market appreciation, and may cause the Fund to experience potentially lower returns than the Fund's benchmark or other funds that remain fully invested. In rising markets, holding cash or cash equivalents will negatively affect the Fund's performance relative to its benchmark.

Premium-Discount Risk. The Shares may trade above or below their NAV. The NAV of the Fund will generally fluctuate with changes in the market value of the Fund's holdings. The market prices of Shares, however, will generally fluctuate in accordance with changes in NAV as well as the relative supply of, and demand for, Shares on the Exchange and other securities exchanges. The existence of significant market volatility, disruptions to creations and redemptions, or potential lack of an active trading market for Fund Shares (including through a trading halt), among other factors, may result in the Shares trading significantly above (at a premium) or below (at a discount) to NAV. If you buy Fund Shares when their market price is at a premium or sell the Fund Shares when their market price is at a discount, you may pay more than, or receive less than, NAV, respectively. The Adviser cannot predict whether Shares will trade below, at or above their NAV. Price differences may be due, in large part, to the fact that supply and demand forces at work in the secondary trading market for Shares will be closely related to, but not identical to, the same forces influencing the prices of the securities held by the Fund. However, given that Shares can be purchased and redeemed in large blocks of Shares, called Creation Units (unlike shares of closed-end funds, which frequently trade at appreciable discounts from, and sometimes at premiums to, their NAV), and the Fund's portfolio holdings are fully disclosed on a daily basis, the Adviser believes that large discounts or premiums to the NAV of Shares should not be sustained, but that may not be the case.

Growth Investing Risk. The Fund invests in growth securities, which may be more volatile than other types of investments, may perform differently than the market as a whole and may underperform when compared to securities with different investment parameters. Under certain market conditions, growth securities have performed better during the later stages of economic recovery (although there is no guarantee that they will continue to do so).

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