

William Blair

December 2024

William Blair Large Cap Growth SMA Strategy Portfolio Review

James S. Golan, CFA, Partner

David C. Ricci, CFA, Partner

Portfolio Managers

Important Disclosures – Large Cap Growth SMA Strategy

This content is for informational and educational purposes only and not intended as investment advice or a recommendation to buy or sell any security. Investment advice and recommendations can be provided only after careful consideration of an investor's objectives, guidelines, and restrictions. Any investment or strategy mentioned herein may not be appropriate for every investor. Factual information has been taken from sources we believe to be reliable, but its accuracy, completeness or interpretation cannot be guaranteed. Information and opinions expressed are those of the author(s) and may not reflect the opinions of other investment teams within William Blair. Information is current as of the date appearing in this material only and subject to change without notice.

William Blair Investment Management, LLC claims compliance with the Global Investment Performance Standards (GIPS®). GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. For purposes of compliance with GIPS, the Firm is defined as all portfolios managed by William Blair Investment Management, a distinct operating unit within William Blair. William Blair Investment Management currently operates as William Blair Investment Management, LLC, an investment adviser registered with the United States Securities and Exchange Commission ("SEC") which is a separate legal entity that is distinct from William Blair & Company, L.L.C. Registration with the SEC does not imply a certain level of skill or training.

Strategy

The Large Cap Growth SMA strategy invests primarily in large-capitalization companies of high quality that demonstrate sustainable growth characteristics.

Performance and Fees

Past performance is not indicative of future returns. Returns for periods greater than one year are annualized. Valuations and returns are denominated in U.S. Dollars. Investment performance assumes reinvestment of dividends and capital gains. The Large Cap Growth SMA Composite was created in October 2001. The composite performance inception date is July 1, 2001.

Gross investment performance is shown gross of all fees and transaction costs and assumes the reinvestment of dividends and capital. Net of fees performance are net of all fees charged directly or indirectly to the accounts. Net of fee results are calculated using the wrap program's maximum fee of 3.00%. This bundled (wrap) fee includes investment advisory fees, financial consultant fees, custodial fees, and trading expenses. Investment management fees are described in William Blair's Form ADV Part 2A.

Risk

The Strategy's returns will vary, and you could lose money by investing in the Strategy. The Strategy invests most of its assets in equity securities of large cap domestic growth companies where the primary risk is that the value of the equity securities it holds might decrease in response to the activities of those companies or market and economic conditions. Individual securities may not perform as expected or a strategy used by the Adviser may fail to produce its intended result. Different investment styles tend to shift in and out of favor depending on market conditions and investor sentiment, and at times when the investment style used by the Adviser for the Strategy is out of favor, the Strategy may underperform other equity strategies that use different investment styles. The Strategy invests most of its assets in equity securities of domestic growth companies, including common stocks and other forms of equity investments (e.g., convertible securities). Convertible securities are at risk of being called before intended, which may have an adverse effect on investment objectives. The Strategy is not intended to be a complete investment program. The Strategy is designed for long-term investors.

Benchmark

The Russell 1000® Growth Index consists of large-capitalization companies with above average price-to-book ratios and forecasted growth rates. The Index is unmanaged and does not incur fees or expenses. It is not possible to directly invest in an unmanaged index.

The data and other information included herein has been provided for the intended recipient's review only and may not be copied, reproduced, redistributed, published, retransmitted, or otherwise shared with any third-party without written permission from William Blair.

Summary & Outlook

December 31, 2024

Market Overview

Performance of U.S. equity indices was broadly positive in the full-year period ended December 31, 2024. In the first quarter, market gains were driven by positive economic data as recession fears continued to subside, inflation gradually moderated from peak levels and corporate profits were solid. While some of this strength continued through the second quarter, economic data softened, which contributed to a variation in returns across market caps and styles during the period.

In the third quarter, U.S. equity returns were more volatile as the market responded to mixed economic data. GDP growth accelerated to an annual rate of 3.0%; however, manufacturing activity declined as new orders for goods fell, in part due to weakened demand and political uncertainty. While unemployment ticked down modestly to 4.2%, the labor market showed signs of cooling as job gains were lower than expected. The consumer price index (CPI) fell to 2.5%, inching closer to the Federal Reserve's 2% inflation target. Accordingly, the Federal Open Market Committee (FOMC) initiated its long-awaited rate easing cycle by lowering the target federal funds rate by 50 basis points in September.

GDP growth accelerated further to 3.1% in the fourth quarter, driven by an increase in consumer and government spending, as well as strong capital expenditure. Inflation was in line with expectations as the CPI increased to 2.7% and the labor market remained solid as U.S. job growth rebounded in November. The Republican Party claimed the U.S. presidency and will control both houses of Congress, albeit by a slim margin. Following the election, the market moved sharply higher as investors anticipated a more favorable regulatory and tax environment under the new administration. Stocks viewed as beneficiaries of a more deregulated environment markedly outperformed in the weeks following the election. However, after the mid-December FOMC meeting, the market abated. Despite enacting the Fed's third rate cut in 2024, stocks moved lower on Powell's comments that further rate cuts will likely occur at a slower pace due to the higher-than-expected inflation readings and the possible implications of future tariffs.

At the end of December, the U.S. Congress avoided a government shutdown by passing a short-term continuing resolution to keep the current fiscal spending levels in place. Against this backdrop, and despite healthy corporate earnings, U.S. equity indices were mixed in the fourth quarter, with the magnitude of returns varied across size and style dimensions. For the full year period, returns for the Large Cap Growth index (Russell 1000 Growth) were extraordinarily concentrated as the top 10 issuer weights in the Index accounted for approximately 80% of the Index return.

Portfolio Performance

The William Blair Large Cap Growth SMA Strategy (net of fees) underperformed its benchmark, the Russell 1000 Growth Index, during the fourth quarter, due to stock-specific dynamics. The top detractors for the period included Advanced Micro Devices (Information Technology), UnitedHealth Group (Health Care), Uber Technologies (Industrials), TransUnion (Industrials) and Linde (Materials). Advanced Micro Devices, a fabless semiconductor company, underperformed due to weaker Gaming revenues, and a more tepid recovery in its Embedded segment. Shares of Uber Technologies, a technology platform that develops and operates networks facilitating the movement of products and people, retreated due to concerns about autonomous vehicles (AVs) and the potential disruption in its business at some point over the next several years. Earnings for the stock were strong for the year, however, the multiple compressed. Not owning Tesla (Consumer Discretionary) and Alphabet (Communication Services) also damped returns. In the case of Tesla, shares moved higher on the belief that the new administration will change the regulatory environment to lower the safety standard and allow AVs to enter the market sooner than expected. Alphabet also benefited from the AV trade in the quarter since the market had previously assigned little value to Waymo, an AV company owned by Alphabet. The top contributors for the period included Apollo Global Management (Financials), Salesforce (Information Technology), Broadcom (Information Technology), ServiceNow (Information

Summary & Outlook

December 31, 2024

Technology) and Amazon (Consumer Discretionary). Shares of Apollo Global Management, a leading global alternatives investment manager, rallied after delivering strong earnings results from its major segments—asset management, insurance, principal investing—along with strong business momentum from its insurance and third-party asset management (ex-Athene) business lines. Amazon, an operator of the internet's leading e-commerce website and a cloud computing business, Amazon Web Services (AWS), benefited from margin strength in its AWS business and improving returns in its retail business. Not owning Eli Lilly and Merck & Co. within the Health Care sector also benefited returns.

Outlook

Looking ahead, investors have generally remained cautiously optimistic, supported by a solid economic backdrop. While the incoming presidential administration's pro-growth policies, including a focus on domestic businesses, could be stimulative to the economy, the inflationary impacts of new tariffs remain a concern. Further, uncertainty surrounding the pace of disinflation, escalating geopolitical tensions, and increasing government debt could be impediments to economic growth and thus negatively impact corporate earnings.

Our investment philosophy leads us to companies with durable businesses, whose stock prices are not reflective of our long-term fundamental expectations, that we believe can outperform over a market cycle. We remain focused on bottom-up, fundamental analysis and identifying companies with superior management, high barriers to entry and differentiated products or services that are underappreciated by the market. We believe our longstanding focus on bottom-up identification of durable business franchises, whose stocks present attractive risk/reward opportunities, will serve us well in a variety of economic environments.

Market Performance

Periods Ending December 31, 2024

	Value	Core	Growth
Month to Date			
Russell 3000	-6.91	-3.06	0.45
Russell 1000	-6.84	-2.79	0.88
Russell Midcap	-7.32	-7.04	-6.22
Russell 2500	-7.18	-7.54	-8.23
Russell 2000	-8.33	-8.26	-8.19
Quarter to Date			
Russell 3000	-1.94	2.63	6.82
Russell 1000	-1.98	2.75	7.07
Russell Midcap	-1.75	0.62	8.14
Russell 2500	-0.26	0.62	2.43
Russell 2000	-1.06	0.33	1.70
Year to Date			
Russell 3000	13.98	23.81	32.46
Russell 1000	14.37	24.51	33.36
Russell Midcap	13.07	15.34	22.10
Russell 2500	10.98	12.00	13.90
Russell 2000	8.05	11.54	15.15

Market Performance

- Performance of U.S. equity indices was mixed in the fourth quarter, with volatility likely driven by the results of the U.S. presidential election, as well as comments from Fed policymakers indicating that further rate cuts will likely occur at a more gradual pace.
- GDP growth accelerated to 3.1%, driven by an increase in consumer and government spending, as well as strong capital expenditure.
- Inflation was in line with expectations as the consumer price index (CPI) increased to 2.7% and the labor market remained solid as U.S. job growth rebounded in November.
- The Federal Open Market Committee (FOMC) continued its rate easing cycle by lowering the target federal funds rate by 25 basis points in both November and December.

Style Performance

- In December, growth benchmarks outperformed value benchmarks in the larger cap segments, while there was little performance differentiation across styles in the smaller cap segments.
- In both the quarter-to-date and year-to-date periods, growth benchmarks outperformed value benchmarks, with a more significant spread in the larger cap segments.

Market Cap Performance

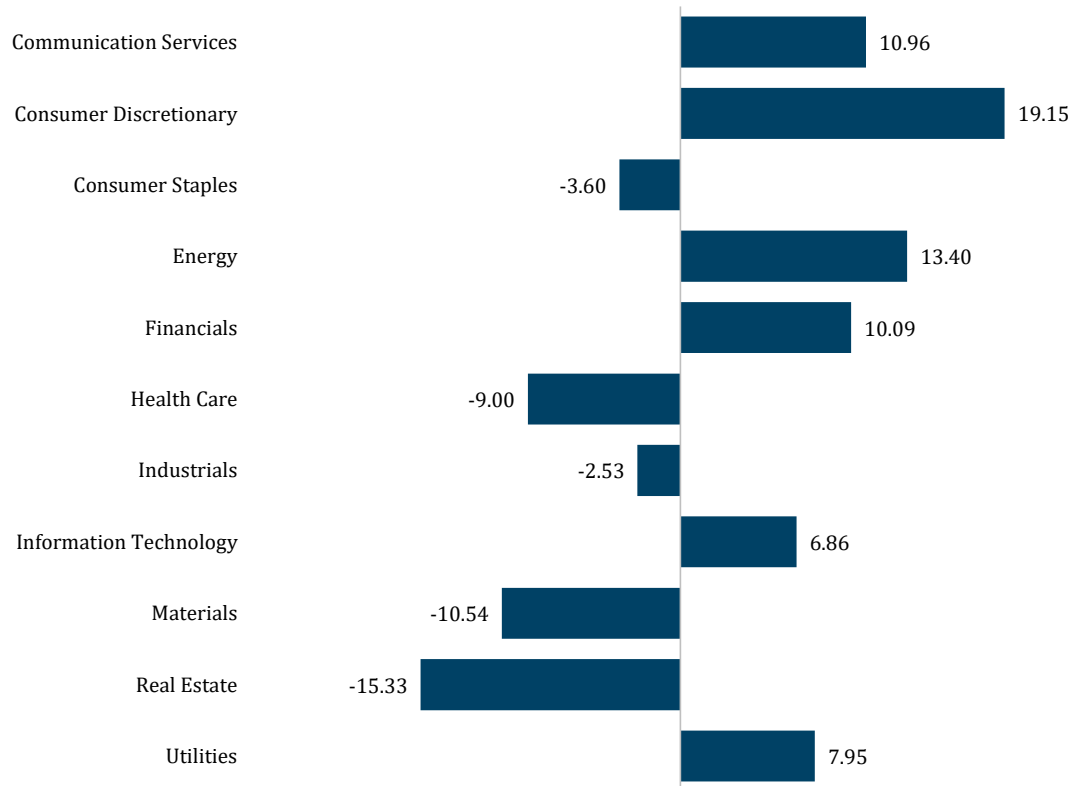
- In December, larger caps outperformed smaller across the style spectrum.
- In the quarter-to-date period, larger caps outperformed smaller caps in the growth benchmarks, while there was little performance differentiation across market cap segments in the value benchmarks.
- In the year-to-date period, larger caps outperformed smaller caps in both the growth and value benchmarks, with the dispersion across the market cap spectrum narrower in the value benchmarks.

Performance data calculated in Eagle.

Past performance is not indicative of future returns. A direct investment in an index is not possible. Please refer to the appendix for additional index information.

Market Performance

Russell 1000 Growth Total Return Q4 2024



As of December 31, 2024.

Data calculated in our proprietary attribution system. Sector diversification calculated by William Blair based on Global Industry Classification Sectors (GICS). Weights may vary over time as benchmark index weights shift.

Past performance is not indicative of future returns. A direct investment in an index is not possible.

Large Cap Growth SMA Strategy

Performance for periods ending December 31, 2024

Composite Performance (%)	Qtr	Annualized				Since Inception
		1 Yr	3 Yr	5 Yr	10 Yr	(Jul 1 01)
Large Cap Growth SMA (Gross of fees)	3.36	26.40	6.70	16.55	16.57	10.22
Large Cap Growth SMA (Net of fees)	2.59	22.73	3.56	13.14	13.16	6.99
Russell 1000 Growth Index	7.07	33.36	10.47	18.96	16.78	10.22

Annual Composite Performance (%)	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Large Cap Growth SMA (Gross of fees)	26.40	41.59	-32.12	28.97	37.26	37.50	6.32	32.27	2.95	8.22	15.72	34.68
Large Cap Growth SMA (Net of fees)	22.73	37.51	-34.20	25.23	33.29	33.53	3.19	28.45	-0.09	5.03	12.34	30.79
Russell 1000 Growth Index	33.36	42.68	-29.14	27.60	38.49	36.39	-1.51	30.21	7.08	5.67	13.05	33.48

Annual Composite Performance (%)	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001 ¹
Large Cap Growth SMA (Gross of fees)	19.77	-2.29	17.30	33.19	-36.96	10.54	7.89	5.27	6.84	26.47	-25.94	-5.87
Large Cap Growth SMA (Net of fees)	16.28	-5.19	13.87	29.34	-38.88	7.34	4.76	2.21	3.74	22.85	-28.16	-7.27
Russell 1000 Growth Index	15.26	2.64	16.71	37.21	-38.44	11.81	9.07	5.26	6.30	29.75	-27.88	-7.21

December 2024 performance is preliminary.

¹Represents partial year performance since inception (7/1/01).

Past performance is not indicative of future returns. Performance is shown in U.S. dollar unless otherwise noted. Returns for periods greater than one year are annualized. Gross investment performance is shown gross of all fees and transaction costs and assumes the reinvestment of dividends and capital. Net investment performance represents the deduction of all fees charged directly or indirectly to the accounts. Net of fee results are calculated using the wrap program's maximum fee of 3.00%. Investment management fees are described in William Blair's Form ADV Part 2A. The Russell 1000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. It is a capitalization-weighted index as calculated by Russell on a total return basis with dividends reinvested. Please see GIPS Composite Report in appendix for a complete description of the composite.

Large Cap Growth Attribution

QTD Contributors

- Top contributors: Apollo Global Management (Financials), Salesforce (Information Technology), Amazon (Consumer Discretionary), ServiceNow (Information Technology) and Carlyle Group (Financials)
- Not owning Eli Lilly (Health Care) and Merck & Co. (Health Care)

QTD Detractors

- Stock selection in Information Technology, including Advanced Micro Devices and not owning Broadcom for a majority of the period
- Other top detractors: UnitedHealth Group (Health Care), Uber Technologies (Industrials) and TransUnion (Industrials)
- Not owning Tesla (Consumer Discretionary) and Alphabet (Communication Services)

2024 Contributors

- Top contributors: NVIDIA (Information Technology), Apollo Global Management (Financials), ServiceNow (Information Technology), Intuitive Surgical (Health Care), as well as our underweight to Apple (Information Technology)
- Not owning Adobe (Information Technology) and Merck & Co. (Health Care)

2024 Detractors

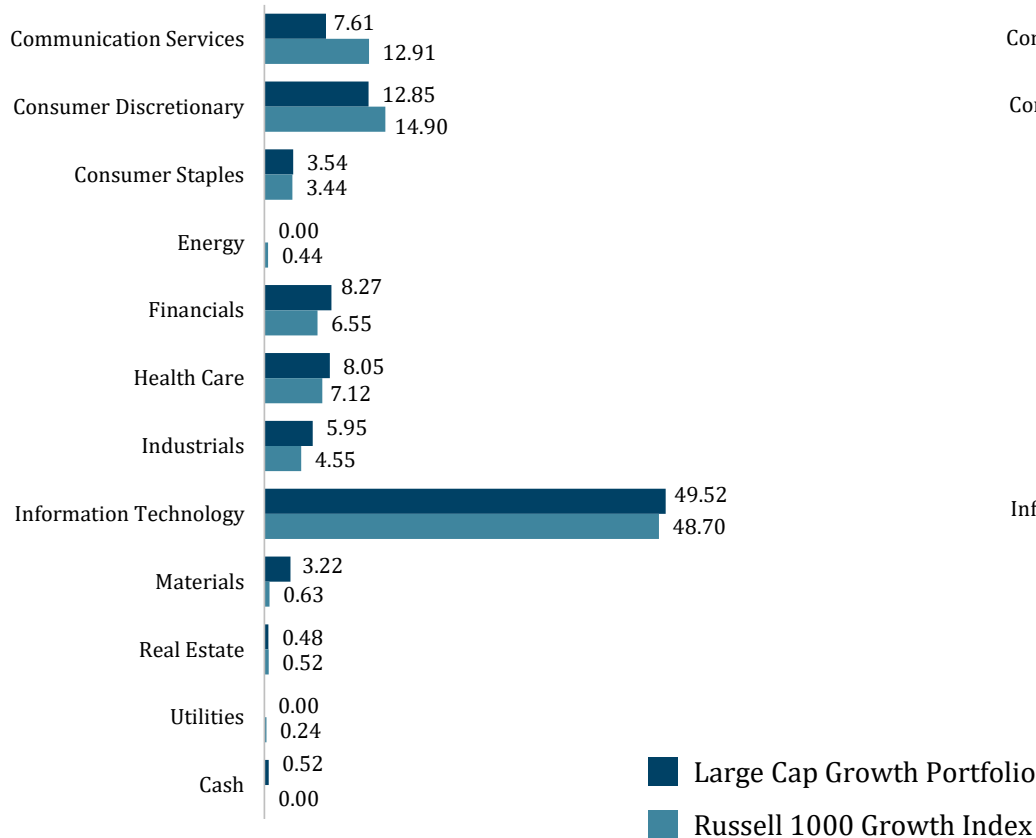
- Stock selection in Communication Services, including Meta Platforms and Alphabet, and Information Technology, including Broadcom and Accenture
- Other top detractors: Monster Beverage (Consumer Staples)
- Not owning Tesla (Consumer Discretionary)

As of December 31, 2024. Source: William Blair.

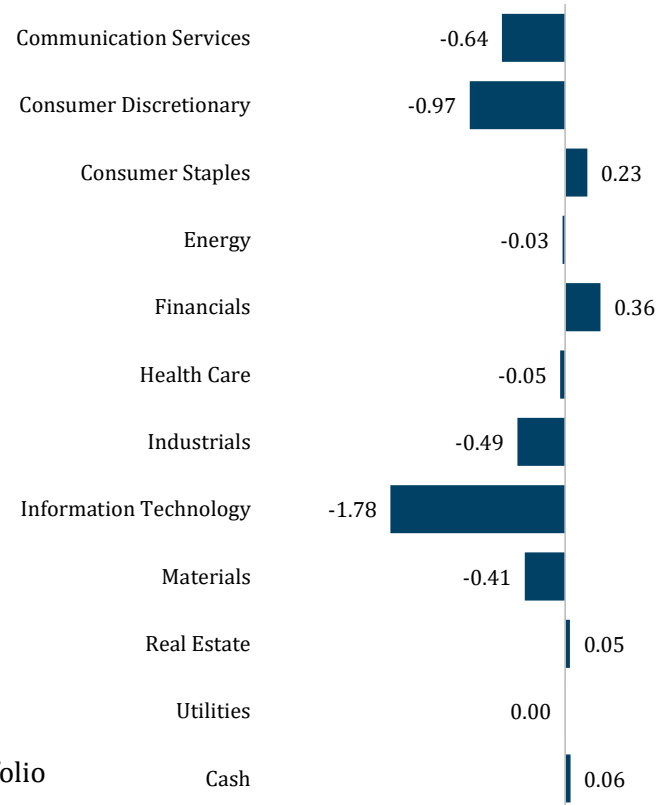
Past performance is not indicative of future returns. The above information is based on the strategy's representative portfolio. Holdings are subject to change at any time. References to specific securities and their issuers are for illustrative purposes only and are not intended and should not be interpreted as recommendations to purchase or sell such securities. William Blair may or may not own the securities referenced and, if such securities are owned, no representation is being made that such securities will continue to be held. The above securities do not represent all of the securities purchased, sold or recommended for all William Blair clients.

Portfolio Analysis

Q4 2024 Average Weights



Q4 2024 Attribution Analysis



Total returns for the representative portfolio: Gross of Fee = 3.39 and Net of Fee = 2.61

Net returns are based on a model fee equal to the maximum separate account management fee for the strategy as of the time the return was calculated.

As of December 31, 2024.

Data calculated in our proprietary attribution system. Sector diversification calculated by William Blair based on Global Industry Classification Sectors (GICS). Weights may vary over time as benchmark index weights shift. Attribution effects are calculated with gross of fee portfolio performance using the Selection Plus methodology.

Past performance is not indicative of future returns. The data shown above is based on the strategy's representative portfolio. Gross investment performance assumes reinvestment of dividends and capital gains, is gross of investment management fees and transaction costs. Performance results will be reduced by the fees incurred. Attribution by segment is based on estimated returns of all equities held during a measurement period, including purchases and sales. Please refer to the performance summary slide for complete composite performance, including net of fees returns.

Top 15 Holdings – Large Cap Growth Portfolio

Large Cap Growth Portfolio

	Large Cap Growth Portfolio % In Portfolio	Russell 1000 Growth Index % In Index
Microsoft Corp	12.20	10.66
NVIDIA Corp	11.89	10.69
Amazon.com Inc	9.47	7.00
Apple Inc	8.99	12.19
Meta Platforms Inc	6.44	4.36
Mastercard Inc	4.65	1.46
Salesforce Inc	2.75	0.89
ServiceNow Inc	2.52	0.74
Intuit Inc	2.34	0.58
UnitedHealth Group Inc	2.34	0.11
Chipotle Mexican Grill Inc	2.34	0.28
Copart Inc	2.30	0.16
Carlyle Group Inc/The	2.22	--
Costco Wholesale Corp	2.19	1.38
TransUnion	1.84	0.00
Total	74.46	50.52

Russell 1000 Growth Index

	Russell 1000 Growth Index % In Index	Large Cap Growth Portfolio % In Portfolio
Apple Inc	12.19	8.99
NVIDIA Corp	10.69	11.89
Microsoft Corp	10.66	12.20
Amazon.com Inc	7.00	9.47
Alphabet Inc	6.93	--
Meta Platforms Inc	4.36	6.44
Tesla Inc	3.82	--
Broadcom Inc	3.59	0.61
Eli Lilly & Co	2.10	--
Visa Inc	1.69	--
Mastercard Inc	1.46	4.65
Costco Wholesale Corp	1.38	2.19
Netflix Inc	1.30	--
Home Depot Inc/The	1.05	--
Salesforce Inc	0.89	2.75
Total	69.11	59.18

Number of Securities

Large Cap Growth Portfolio	33
----------------------------	----

Russell 1000 Growth Index	396
---------------------------	-----

As of December 31, 2024.

Calculated by William Blair. Specific securities identified and described do not represent all of the securities purchased, sold, or recommended and you should not assume that investments in the securities identified were or will be profitable. The data shown above is based on the strategy's representative portfolio. Holdings include cash. Individual securities listed in this report are for informational purposes only. Holdings are subject to change at any time. This information does not constitute, and should not be construed as, investment advice or recommendations with respect to the securities listed.

Large Cap Growth Portfolio Characteristics

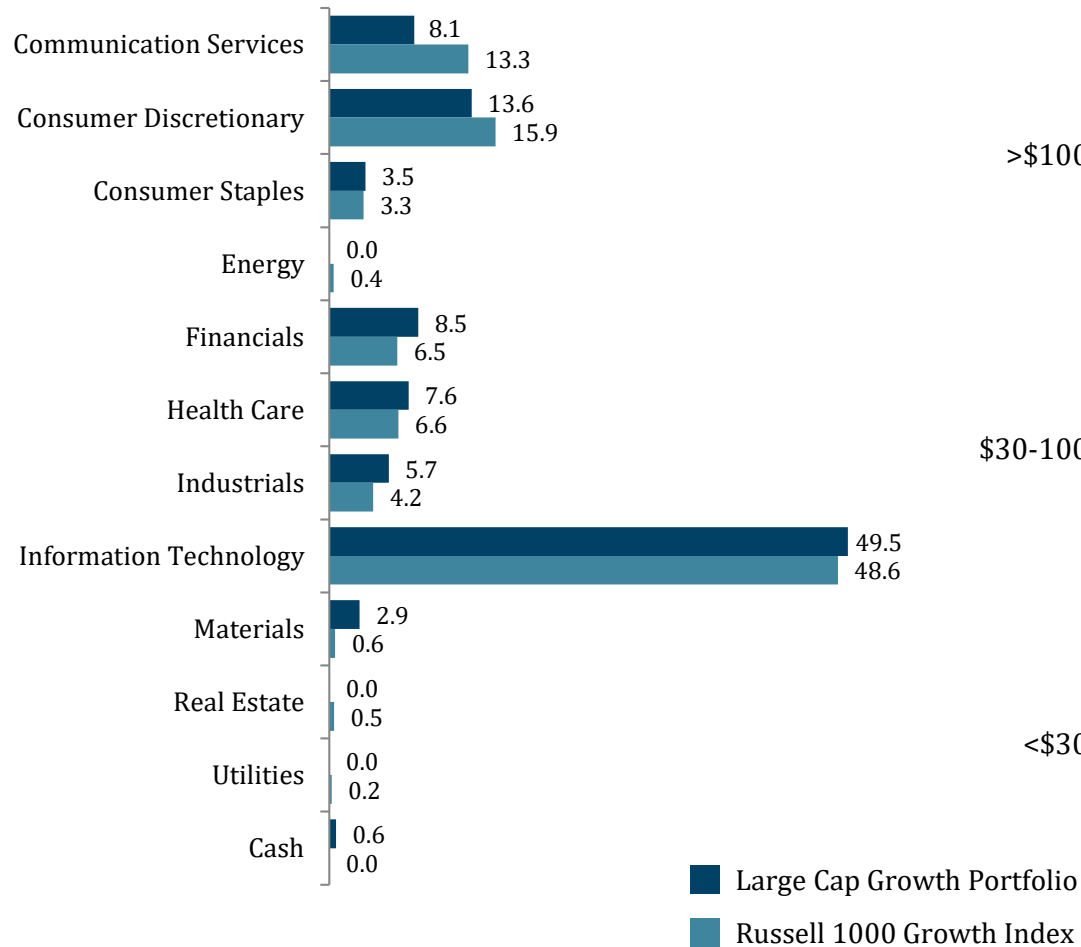
	Large Cap Growth Portfolio	Russell 1000 Growth Index
Growth		
EPS Growth Rate (LT forecast)	21.2%	21.9%
Quality		
Return on Assets (5-year average)	16.7%	16.5%
Free Cash Flow Margin	21.6%	20.3%
Debt to Total Capital	35.7%	39.4%
Valuation		
P/E (1-year forecast)	29.1x	29.0x
Dividend Yield	0.5%	0.6%
Capitalization (\$B)		
Weighted Average Market Cap	\$1,530.6	\$1,710.6
Weighted Median Market Cap	\$483.4	\$1,478.6
Portfolio Positions		
Number of Securities	33	396
Cash		
% Cash in Portfolio	0.6%	--

As of December 31, 2024.

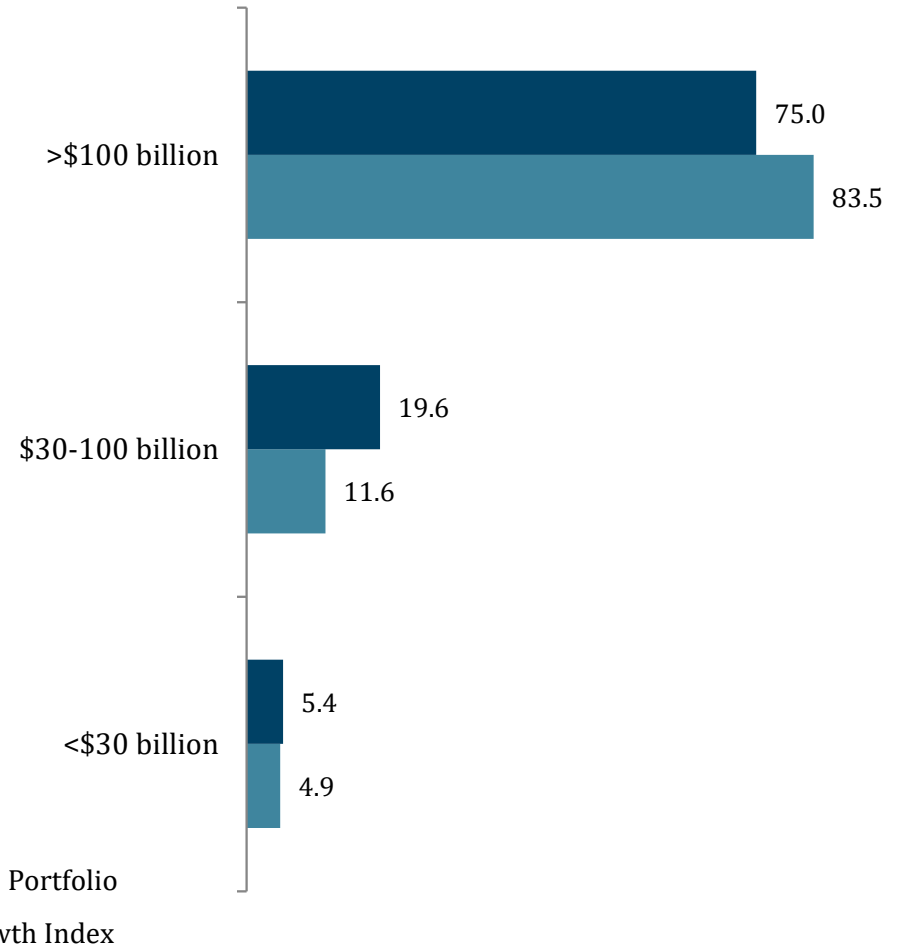
Calculated by William Blair. Yield is only one component of expected performance and is not and should not be viewed as a statement of the future performance of the strategy. Please refer to the performance summary for complete performance information. The data shown above is based on the strategy's representative portfolio.

Large Cap Growth Portfolio Composition

Sector Diversification



Market Cap Breakdown¹



As of December 31, 2024.

¹Portfolio allocations exclude cash.

Sector diversification calculated in Eagle by William Blair based on Global Industry Classification Sectors (GICS). Market capitalization is calculated in Eagle by William Blair. Weights may vary over time as benchmark index weights shift. The data shown above is based on the strategy's representative portfolio. Weights shown are percentages of total net assets.

Holdings: Large Cap Growth

December 31, 2024

	Portfolio Weight	Benchmark Weight		Portfolio Weight	Benchmark Weight
COMMUNICATION SERVICES	8.13	13.28	INDUSTRIALS (continued)		
Meta Platforms Inc-Class A	6.44		Uber Technologies Inc	1.54	
Live Nation Entertainment In	1.69		INFORMATION TECHNOLOGY	49.54	48.60
CONSUMER DISCRETIONARY	13.59	15.88	Microsoft Corp	12.20	
Amazon.Com Inc	9.47		Nvidia Corp	11.89	
Chipotle Mexican Grill Inc	2.34		Apple Inc	8.99	
O'Reilly Automotive Inc	1.79		Salesforce Inc	2.75	
CONSUMER STAPLES	3.46	3.27	Servicenow Inc	2.52	
Costco Wholesale Corp	2.19		Intuit Inc	2.34	
Monster Beverage Corp	1.27		Lam Research Corp	1.72	
ENERGY	0.00	0.42	Advanced Micro Devices	1.55	
FINANCIALS	8.51	6.49	Palo Alto Networks Inc	1.37	
Mastercard Inc - A	4.65		Accenture Plc-Cl A	1.36	
Carlyle Group Inc/The	2.22		Datadog Inc - Class A	1.16	
Apollo Global Management Inc	1.64		Texas Instruments Inc	1.08	
HEALTH CARE	7.57	6.61	Broadcom Inc	0.61	
Unitedhealth Group Inc	2.34		MATERIALS	2.90	0.56
Agilent Technologies Inc	1.53		Martin Marietta Materials	1.62	
West Pharmaceutical Services	1.27		Linde PLC	1.27	
Idexx Laboratories Inc	1.25		REAL ESTATE	0.00	0.46
Veeva Systems Inc-Class A	1.19		UTILITIES	0.00	0.22
INDUSTRIALS	5.67	4.20	Cash	0.63	0.00
Copart Inc	2.30		Total	100.00	100.00
Transunion	1.84				

The data shown above is based on the strategy's representative portfolio. Holdings include cash. Individual securities listed in this report are for informational purposes only. Holdings are subject to change at any time. This information does not constitute, and should not be construed as, investment advice or recommendations with respect to the securities listed.

Glossary – Terms

Active Share: A measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index.

Alpha: A measure of a portfolio's return in excess of the market return, after both have been adjusted for risk. It is a mathematical estimate of the amount of return expected from a portfolio above and beyond the market return at any point in time. For example, an alpha of 1.25 indicates that a stock is projected to rise 1.25% in price in a year over the return of the market, or the return when the market return is zero. When an investment price is low relative to its alpha, it is undervalued, and considered a good selection.

Beta: A quantitative measure of the volatility of the portfolio relative to the overall market, represented by a comparable benchmark. A beta above 1 is more volatile than the overall market, while a beta below 1 is less volatile, and could be expected to rise and fall more slowly than the market.

CFROI (Cash Flow Return on Invested Capital): A measure of how effectively a company generates cash flow based on legacy capital investment.

Convexity: A measure of the sensitivity of a fixed income investment's duration to changes in yield.

Developed Markets: Using the Morgan Stanley Capital International (MSCI) geographic definition, this region includes: United Kingdom, Europe (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Spain, Sweden and Switzerland), Japan, Pacific Asia (Australia, Hong Kong, New Zealand, and Singapore) and the Western Hemisphere (Canada and other Americas).

Debt to Total Capital Ratio: This figure is the percentage of each company's invested capital that consists of debt. Companies with a high Debt to Total Capital level may be considered riskier. From a portfolio perspective, the portfolio Debt to Total Capital Ratio is a weighted average of the individual holdings' Debt to Total Capital Ratio.

Duration: A measure of the price sensitivity of a fixed income investment to a change in interest rates, stated in years.

Emerging Markets: Using MSCI's geographic definition, this region includes: Emerging Markets Asia (China, India, Indonesia, Malaysia, S Korea, Taiwan, and Thailand), Emerging Markets Europe, Mid-East and Africa (Czech Republic, Hungary, Poland, Russia, Turkey, Egypt, Morocco, and S Africa), and Latin America (Argentina, Brazil, Chile, Columbia, Mexico, Peru and Venezuela).

EPS Estimate Revision Breadth: A 1-month factor representing the trend in the direction of estimate changes. Range from -100% to +100%, it is calculated as the number of positive revisions minus the number of negative revisions divided by the total number of estimates.

EPS (Earnings Per Share) Growth Rate (Projected): This measure represents the weighted average of forecasted growth in earnings expected to be experienced by the stocks within the portfolio over the next year. From a portfolio perspective, the portfolio EPS Growth Rate is a weighted average of the individual holdings' EPS Growth Rate.

EPS Growth Rate (5-Year Historic): The weighted average earnings per share growth for stocks within the portfolio over the past 5 years.

EV/EBITDA (Enterprise Value/Earnings Before Interest, Taxes and Depreciation-Amortization): The EV/EBITDA ratio is useful for global comparisons because it ignores the distorting effects of individual countries' taxation policies. It's used to find attractive takeover candidates. Enterprise value is a better measure than market cap for takeovers because it takes into account the debt which the acquirer will have to assume. Therefore, a company with a low EV/EBITDA ratio can be viewed as a good takeover candidate.

EV/IC: (Enterprise Value/Invested Capital) Ratio: Enterprise Value (EV), which is market capitalization minus cash plus debt divided by Invested Capital (IC), which is the sum of common stock, preferred stock and long-term debt. This number will get you a simple multiple. If it is below 1.0, then it means that the company is selling below book value and theoretically below its liquidation value.

Frontier Markets: Less advanced capital markets in the developing world.

FX: In finance, an exchange rate is the rate at which one currency will be exchanged for another. It is also regarded as the value of one country's currency in relation to another currency.

Information Ratio: A measure of risk-adjusted return. The annualized excess return of the portfolio relative to a respective benchmark, divided by the annualized tracking error relative to that same benchmark. The higher the measure, the higher the risk-adjusted return.

Integrated: Constructs a portfolio of the top 20% of stocks based on William Blair's multi-factor composite model, which uses Earnings Trend, Momentum, Quality, and Valuation factors. The portfolio is rebalanced on a monthly basis and weights stocks based on relative market capitalization.

Net Debt to EBITDA: A measure of leverage calculated by taking interest bearing liabilities minus cash divided by earnings before interest, taxes, depreciation, and amortization.

Option-Adjusted Spread (OAS): A measure of the spread of a fixed income investment's yield relative to a benchmark, adjusted to take into account an embedded option.

PBVn (Price/Book Value) Ratio: The PBV Ratio measures the value of a company's common stock relative to its shareholder's equity. A price-to-book multiple above one means that the price of the company's common stock is higher than its common shareholder's equity. A price-to-book multiple below one means that the price of the company's common stock are less than its break-up value, and the shares may be undervalued.

PCF (Price/CashFlow): Some analysts favor the price/cash flow over the price-earnings (PE) ratio as a measure of a company's value. Cash flow is a measure of a company's financial health. It equals cash receipts minus cash payments over a given period of time.

P/E (Price/Earnings) Ratio: This is the most common measure of how expensive a stock is. Simply, it is the cost an investor in a given stock must pay per dollar of current annual earnings. A high P/E generally indicates that the market is paying more to obtain the stock because it has confidence in the company's ability to increase its earnings. Conversely, a low P/E often indicates that the market has less confidence that the company's earnings will increase rapidly or steadily, and therefore will not pay as much for its stock.

Price to Book: A stock's capitalization divided by its book value. This ratio compares the market's valuation of a company to the value of that company as indicated on its financial statements.

R-squared: A measurement of how closely the portfolio's performance correlates with the performance of its benchmark, such as the MSC AC World Free ex US Index. In other words, it is a measurement of what portion of a portfolio's performance can be explained by the performance of the overall market or index. Ranges from 0 to 1, where 0 indicates no correlation and 1 indicates perfect correlation.

Recovery Rate: The extent to which principal and interest on defaulted debt can be recovered, expressed as a percentage of face value.

Risk (Standard Deviation): A measure of the portfolio's risk. A higher standard deviation represents a greater dispersion of returns, and thus a greater amount of risk. The annualized standard deviation is calculated using monthly returns.

Silo: Constructs portfolios using the top 20% of stocks based on each of the four sub-models used to construct William Blair's composite model, then averages the returns coming from each of the four portfolios. The portfolios are rebalanced on a monthly basis and weights stocks based on relative market capitalization. (The Equal Weighted strategy equally weights the returns coming from each of the sub-portfolios; the Optimized approach weights Quality 5%, Valuation 60%, Earnings Trend 5%, and Momentum 30%. The optimization was based on a Monte-Carlo simulation that sought an optimal weighting of each sub-portfolios to achieve the highest return).

Sortino Ratio: A modification of the Sharpe ratio that differentiates harmful volatility from general volatility by taking into account the standard deviation of negative asset returns, called downside deviation. The Sortino ratio subtracts the risk-free rate of return from the portfolio's return, and then divides that by the downside deviation. A large Sortino ratio indicates there is a low probability of a large loss.

Sharpe-Ratio: A risk-adjusted measure calculated using standard deviation and excess return (Portfolio return – Risk Free Rate) to determine reward per unit of risk. The higher the Sharpe ratio, the better the portfolio's historic risk-adjusted performance.

Spread Duration: A measure of the price sensitivity of a fixed income investment to a change in credit spreads.

Tracking Error: Tracking Error measures the extent to which a portfolio tracks its benchmark. The tracking error of an index portfolio should be lower than that of an active portfolio. The tracking error will always be greater than zero if the portfolio is anything other than a replication of the benchmark.

Trailing 1-Year Turnover: This figure reflects the portfolio's trading activity by calculating the amount of the portfolio's holdings bought or sold over the prior year, expressed as a percentage of the portfolio's average market value. Turnover figures may be related to the amount of trading costs experienced by the portfolio.

Weighted Average Market Capitalization: Market capitalization refers to the total market value of each company's outstanding shares. The Weighted Average Market Capitalization for a portfolio is calculated as the average market capitalization of the stocks within the portfolio, weighted by the amount of each stock owned.

Weighted Median Market Capitalization: This calculation represents the median market capitalization of the stocks in the portfolio, weighted by the amount of each stock owned.

Yield to Maturity: A representation of the rate of return anticipated on a bond if held until its maturity.

Yield to Worst: A representation of the lowest potential yield that an investor would receive on a bond if the issuer does not default.

Glossary – Indices

MSCI (Morgan Stanley Capital International): MSCI indices are the most widely used benchmarks by global portfolio managers. MSCI offers international investors performance benchmarks for 51 national stock markets as well as regional, sector, industry group, and industry aggregations.

MSCI China All Shares Index: a free-float weighted equity index designed to capture large and mid-cap representation across China A-shares, B-shares, H-shares, Red-chips, P-chips and foreign listings (e.g. ADRs). The index aims to reflect the opportunity set of China share classes listed in Hong Kong, Shanghai, Shenzhen and outside of China.

MSCI China A Onshore Index: A free-float weighted equity index, designed to measure performance of China A share securities listed on either the Shanghai or Shenzhen Stock Exchanges.

MSCI All Country World ex-US EAFE Index: An unmanaged index that includes developed and emerging markets outside the United States.

MSCI All Country World ex-US Small Cap Index: A free float-adjusted market capitalization index designed to measure global developed and emerging market small capitalization equity performance, excluding the U.S.

MSCI EAFE Index: A free float-adjusted market capitalization index which captures large and mid cap representation across Developed Markets countries around the world, excluding the U.S. and Canada.

MSCI EAFE IMI Index: A free float-adjusted market capitalization index which captures large, mid and small cap representation across Developed Markets countries around the world, excluding the U.S. and Canada.

MSCI EAFE Growth Index: A free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. & Canada.

MSCI All Country World ex-US Index: An unmanaged index that includes developed and emerging markets, excluding the U.S.

MSCI All Country World ex-US Growth Index: A free float-adjusted market capitalization index that is designed to provide a broad measure of equity-market performance throughout the world, excluding the U.S. It includes those MSCI All Country World ex-US securities with higher price-to-book ratios and higher forecasted growth rates.

MSCI All Country World ex-US IMI Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets, excluding the U.S.

MSCI All Country World IMI Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets.

MSCI All Country World ex-US IMI Growth Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets, excluding the U.S. It includes those MSCI All Country World ex-US IMI Index securities with higher price-to-book ratios and higher forecasted growth rates.

MSCI World ex-US Growth Index: A free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, excluding the U.S., with higher price-to-book ratios and higher forecasted growth rates.

MSCI World ex-US Index: A free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, excluding the U.S.

MSCI Emerging Markets Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

MSCI Emerging Markets IMI Index: A free float-adjusted market capitalization index which captures large, mid and small cap equity market performance in the global emerging markets.

MSCI Emerging Markets ex-China IMI Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets excluding China.

MSCI Emerging Markets Small Cap Index: A free float-adjusted market capitalization index that is designed to measure equity market performance of small cap companies in emerging markets.

MSCI Emerging Markets Large Cap Index: A free float-adjusted market capitalization index that is designed to measure equity market performance of large cap companies in emerging markets.

MSCI World ex-US Small Cap Index: An unmanaged index that includes non-US developed markets.

Russell 1000 Index: Measures the performance of the 1000 largest companies in the Russell 3000 Index, which represents approximately 90% of the total market capitalization of the U.S. market.

Russell 1000 Growth Index: Measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 1000 Value Index: Measures the performance of the large cap value segment of the U.S. equity universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2000 Index: Measures the performance of the 2000 smallest companies in the Russell 3000 index, which represents approximately 8% of the total market capitalization of the Russell 3000 index.

Russell 2000 Growth Index: Measures the performance of those Russell 2000 companies with higher price-to book ratios and higher forecasted growth values.

Russell 2000 Value Index: Measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2500 Index: Measures the performance of the 2500 smallest companies in the Russell 3000 Index.

Russell 2500 Growth Index: Measures the performance of those Russell 2500 companies with higher price-to book ratios and higher forecasted growth values.

Russell 2500 Value Index: Measures the performance of those Russell 2500 companies with lower price-to book ratios and lower forecasted growth values.

Russell 3000 Index: Measures the performance of the 3000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

Russell 3000 Growth Index: Measures the performance of those Russell 3000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell Midcap Index: Measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 27% of the total market capitalization of the Russell 1000 companies.

Russell Midcap Growth Index: Measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values.

Russell Midcap Value Index: Measures the performance of the mid-cap value segment of the U.S. equity universe. It includes those Russell Midcap Index companies with lower price-to-book ratios and lower forecasted growth values.

S&P 500 Index: The Standard & Poor's 500 Index (S&P 500) is an index of 500 stocks chosen for market size, liquidity and industry grouping, among other factors. The S&P 500 is designed to be a leading indicator of U.S. equities and is meant to reflect the risk/return characteristics of the large cap universe. Companies included in the index are selected by the S&P Index Committee, a team of analysts and economists at Standard & Poor's. The S&P 500 is a market value weighted index—each stock's weight is proportionate to its market value.

A direct investment in an unmanaged index is not possible.

Composite Presentation Report

Large Cap Growth SMA

Calendar Year	Composite Gross Return (%)	Composite Net Return (%)	Russell 1000 Growth Return (%)	Composite 3-Yr Std Dev (%)	Benchmark 3-Yr Std Dev (%)	Number of Portfolios	Dispersion (%)	Composite Assets End of Period \$(mm)	Total Firm Assets \$(mm)
2014	15.72	12.34	13.05	11.53	9.59	5/Fewer	N/A**	10.33	63,060.05
2015	8.22	5.03	5.67	11.06	10.70	5/Fewer	N/A**	10.29	64,777.78
2016	2.95	-0.09	7.08	11.80	11.15	5/Fewer	N/A**	13.63	64,872.51
2017	32.27	28.45	30.21	10.91	10.54	5/Fewer	N/A**	22.78	73,549.85
2018	6.32	3.19	-1.51	12.13	12.13	5/Fewer	N/A**	21.10	48,880.26
2019	37.50	33.53	36.39	11.67	13.07	5/Fewer	N/A**	32.13	58,446.29
2020	37.26	33.29	38.49	18.07	19.64	5/Fewer	N/A**	48.39	69,739.61
2021	28.97	25.23	27.60	17.18	18.17	5/Fewer	N/A**	54.08	79,683.54
2022	-32.12	-34.20	-29.14	24.05	23.47	5/Fewer	N/A**	33.62	56,036.64
2023	41.59	37.51	42.68	21.54	20.51	5/Fewer	N/A**	75.32	67,246.03

Disclosures:

William Blair Investment Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. William Blair Investment Management has been independently verified for the periods January 1, 1993 through December 31, 2022. The verification reports are available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

For purposes of compliance with GIPS, the Firm is defined as all portfolios managed by William Blair Investment Management, a distinct operating unit within William Blair. William Blair Investment Management currently operates as William Blair Investment Management, LLC, an investment adviser registered with the United States Securities and Exchange Commission ("SEC") which is a separate legal entity that is distinct from William Blair & Company, L.L.C. Registration with the SEC does not imply a certain level of skill or training.

The Large Cap Growth SMA strategy invests primarily in large-capitalization companies of high quality that demonstrate sustainable growth characteristics.

The benchmark that best reflects the composite's investment style is the Russell 1000® Growth Index, which measures the performance of those Russell 1000® companies with higher price-to-book ratios and higher forecasted growth rates.

There is no minimum initial market value requirement for this composite. New portfolios are added to the composite at the beginning of the month following the first full calendar month under management. Portfolios will be excluded from the composite the first month immediately following the last complete month of authorized management by the Firm. Portfolios are removed at the wrap total level by Vestmark, in the event of a significant cash flow, for the month during which the flow occurs. Portfolios are typically added back into the composite the following month. A portfolio is determined to have a significant cash flow if the accumulated net external flows of cash and/or securities during a month exceed the significant cash flow threshold, which is 25% of the beginning of month portfolio market value. Additional information regarding the treatment of significant cash flows is available upon request.

Performance includes the reinvestment of dividends and other earnings. Portfolio returns are calculated daily. Composite returns are calculated monthly by weighting monthly portfolio returns based on beginning of month market values. Valuations and returns are denominated in U.S. Dollars. Composite dispersion measures represent the consistency of a firm's composite performance with respect to the individual portfolio returns within a composite. The dispersion of annual returns is measured by the asset-weighted standard deviation of the gross returns in the composite. Dispersion includes only those portfolios that have been included in the composite for the entire year. The three-year annualized standard deviation measures the variability of the gross composite returns and benchmark returns over the preceding 36-month period. This statistic is not presented until there are 36 months of performance available.

Performance results are stated net of all fees charged directly or indirectly to the accounts. Net of fee results are calculated using the wrap program's maximum fee of 3.00%. This bundled (wrap) fee includes investment management fees, financial consultant fees, custodial fees, and trading expenses. Bundled fee portfolios constitute 100% of composite assets. Performance results are also stated gross of all fees and transaction costs ("Pure Gross") and are presented as supplemental data.

The Large Cap Growth SMA Composite was created in October 2001. The composite performance inception date is July 1, 2001. Prior to December 2020, the composite was named Large Cap Growth Wrap.

A complete list and description of firm composites and pooled funds is available upon request. Additional information regarding valuing investments, calculating performance, and preparing GIPS reports is also available upon request. Past performance is not indicative of future results. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. The data and other information included herein has been provided for the intended recipient's review only and may not be copied, reproduced, redistributed, published, retransmitted, or otherwise shared with any third-party without written permission from William Blair.

**Five or fewer portfolios were included in the composite for the entire year.