



Global Growth Fund

Fund Facts

The fund seeks to invest in companies with sustainable competitive advantages, long-term structural growth drivers, attractive cash flow returns on invested capital, and management teams focused on creating long-term value for shareholders. The fund's portfolio manager also aims to invest in companies when they trade at a significant discount to the estimate of intrinsic value.

Strategy AUM ¹	\$1.8 billion
Fund AUM	\$81.8 million
Share Class	Y
Inception	3/31/2016
Ticker	LSGGX
Benchmark	MSCI ACWI Net
CUSIP	63872T224
Portfolio Manager	Aziz Hamzaogullari
Manager Since	Inception

¹Strategy assets are comprised of Loomis Sayles Global Growth style accounts.

Portfolio Review

- The fund posted positive returns of 6.97% vs. 9.76% for the MSCI ACWI Net Index, underperforming the benchmark by 2.79% net during the fourth quarter. Boeing, Oracle, and Novartis were the three largest contributors to performance during the quarter. Amazon, Tesla, and CRISPR Therapeutics were the three lowest contributors to performance.
- Stock selection in the information technology, industrials, and communication services sectors, as well as our allocations to the healthcare and industrials sectors, contributed positively to relative performance. Stock selection in the healthcare, consumer discretionary, and consumer staples sectors, as well as our allocations to the consumer discretionary, communication services, financials, information technology, and consumer staples sectors, detracted from relative performance.
- The fund is actively managed with a long-term, private equity approach to investing. Through our proprietary bottom-up research framework, we look to invest in those few high-quality businesses with sustainable competitive advantages and profitable growth when they trade at a significant discount to intrinsic value (our estimate of the true worth of a business, which we define as the present value of all expected future net cash flows to the company).

Class Y Performance as of December 31, 2022 (%)

	CUMULATIVE TOTAL RETURN		AVERAGE ANNUALIZED RETURN			
	3 MONTH	YTD	1 YEAR	3 YEAR	5 YEAR	SINCE INCEPTION
FUND	6.97	-25.89	-25.89	2.01	5.28	9.19
BENCHMARK	9.76	-18.36	-18.36	4.00	5.23	8.38
EXCESS RETURN	-2.79	-7.53	-7.53	-1.99	+0.05	+0.81

Performance data shown represents past performance and is no guarantee of, and not necessarily indicative of, future results. Investment return and value will vary and you may have a gain or loss when shares are sold. Current performance may be lower or higher than quoted. For most recent month-end performance, visit www.loomissayles.com.

Additional share classes may be available for eligible investors. Performance will vary based on the share class. Performance for periods less than one year is cumulative, not annualized. Returns reflect changes in share price and reinvestment of dividends and capital gains, if any. You may not invest directly in an index.

Gross expense ratio 1.04% (Class Y). Net expense ratio 0.95%. As of the most recent prospectus, the investment advisor has contractually agreed to waive fees and/or reimburse expenses once the expense cap of the fund has been exceeded. This arrangement is set to expire on 3/31/2023. When an expense cap has not been exceeded, the fund may have similar expense ratios.

Institutional Class shares (Class Y) are available to institutional investors only; minimum initial investment of \$100,000.

Top Ten Holdings (%)

Novartis AG	5.0
Boeing Company	4.8
MercadoLibre, Inc.	4.6
Alphabet Inc.	4.6
Visa Inc.	4.3
Amazon.com, Inc.	4.2
Meta Platforms, Inc.	3.8
Alnylam Pharmaceuticals, Inc	3.8
Oracle Corporation	3.7
Microsoft Corporation	3.7
Total	42.5

Data is based on total gross assets before any fees are paid; any cash held is included. The portfolio is actively managed and holdings are subject to change. References to specific securities or industries should not be considered a recommendation. Holdings may combine more than one security from the same issuer and related depositary receipts. Portfolio weight calculations include accrued interest. For current holdings, please visit www.loomissayles.com.



New Purchase Highlights

There were no new purchases during the period.

Portfolio Activity

All aspects of our quality-growth-valuation investment thesis must be present for us to make an investment. Often our research is completed well in advance of the opportunity to invest. We are patient investors and maintain coverage of high-quality businesses in order to take advantage of meaningful price dislocations if and when they occur. During the quarter, we added to our existing positions in Block, Meta Platforms and Tesla as near-term price weaknesses created attractive reward-to-risk opportunities. We trimmed our positions in Deere, Nestle, Novartis, Roche, Sodexo, Unilever and Vertex Pharmaceuticals.

Contributors

Boeing, Oracle, and Novartis were the three largest contributors to fund performance.

- Founded in 1916, **Boeing** is a global leader in the commercial and defense aerospace industries. The company manufactures commercial aircraft for passenger and cargo traffic as well as manned and unmanned military aircraft, missile and defense systems, satellites and launch systems, and other space and security systems. The company operates primarily through three segments: commercial airplanes (historically around 60% of revenues), defense, space and security (historically 20-25% of revenues), and global services (historically 15-20% of revenues). Along with Airbus, Boeing is part of a global duopoly that accounts for almost all commercial planes sold with greater than 125 seats – the largest market segment. The company serves customers in over 150 countries and non-US sales typically account for greater than 40% of total revenues.

A fund holding since April 2020, Boeing's most-recently reported quarterly financial results were below consensus expectations for revenues and operating profit and included significant charges related to their defense business. However, the company generated positive quarterly free cash flow (FCF) for only the second time since the 737 MAX was first grounded in the first quarter of 2019. Shares also responded positively to the company's investor day projection that Boeing could generate \$10 billion in annual free cash flow by the middle of the decade. Boeing continues to face execution issues across several programs. Despite the near-term challenges, we do not view the issues as structural and believe the long-term earnings power of the company remains unchanged and significantly underappreciated. Although supply chain issues continue to depress deliveries, Boeing has made significant progress with the 737 MAX, which is now cleared to fly in most countries with the major exception of China. The company had originally anticipated the MAX would be approved in China in 2022, but a combination of ongoing Covid flare-ups, an accident in March involving a predecessor to the MAX, and ongoing geopolitical tensions have left timing uncertain. As a result, given the very strong customer demand elsewhere and a significant backlog that equates to about a five-year waiting list, the company is looking to remarket some of the 138 aircraft currently being held in inventory for Chinese clients. Boeing has also faced challenges with its 787 model. After deliveries were halted for almost two years to address manufacturing flaws in the body of the aircraft and other faults, the company resumed deliveries during the third quarter and expects to clear its remaining inventory over the next two years. We believed the issues were temporary, not structural, and despite the halt the 787 was the most used widebody aircraft during the pandemic. We estimate that Boeing has approximately \$43 billion of aircraft currently in inventory, including 270 MAXs and 115 787s, which will generate substantial revenue and cash flow as they are likely delivered over the next 12-to-24 months. As of September quarter-end, the backlog of \$381 billion, or over 4,300 aircraft, was up 4% year over year. Despite still uneven quarterly results, air traffic recovery is underway, and absent further issues with the MAX and 787 we believe the company's long-term earnings power



remains intact. The company's defense business incurred charges that spanned a number of its programs, with the common themes of labor availability, supply chain issues, price inflation, and macro uncertainty all contributing negatively. While the company expects cash flow in the segment to remain negative in 2023, the segment has historically been a strong free cash flow generator, which included a cumulative \$7 billion in FCF over the prior two years.

Boeing's financial results remain significantly impacted by the decline in global air travel due to Covid-19. At its low point in April 2020, travel demand, as measured by revenue passenger kilometer (RPK), which represents distance flown by paying passengers, had declined 94% from April 2019. And while demand has substantially improved outside of Asia, where China's since-lifted Covid restrictions depressed regional travel until recently, as an indicator, in November of 2022 RPK ex-Asia still remained 10% below November of 2019. We believe the impact of Covid-19, along with the 2019 grounding of the 737 MAX, the fourth generation of its most profitable airplane model, represented temporary, not structural, issues that created the opportunity to initiate our position. Since 1980, RPK has grown at a 5.3% compounded annual rate, and had been negative on just three prior occasions: during the 1991 Gulf War, following 9/11, and in 2009 after the financial crisis. While 2020 represented the fourth and by far the largest such occasion due to Covid-19, RPK has historically grown at approximately 1.5-times global GDP, which we expect will continue. We took advantage of this steepest-ever decline in global air travel to initiate our position in Boeing. While it may be a few years before travel returns to 2019 levels, over our long-term investment horizon we believe demand for global air travel will continue to grow at a mid-single-digit rate. More importantly, we believe that, as with many other cyclical growth businesses we successfully purchased in prior downturns. It is not the exact timing of the recovery, but rather the margin of safety that is created between the expectations embedded by the marketplace and what we believe will happen directionally over the long term that matters. We believe Boeing is one of only two companies globally which possess the requisite expertise and scale to profitably serve the global demand for commercial aircraft, and that its strong and sustainable competitive advantages would be very difficult to replicate.

Cyclical businesses often give rise to investor overreaction during the inevitable peaks and troughs. We believe the current market price is embedding expectations that the company will likely not return to its 2018 level of deliveries in the next ten years, and that margins are structurally impaired – both of which we believe are overly pessimistic versus our long-term expectations. As a result, we believe the company is selling at a significant discount to our estimate of intrinsic value and offers a compelling reward-to-risk opportunity.

- **Oracle** is a leader in the enterprise software market, with a strong market position in database, infrastructure and application software, and cloud-based software and services. The company's competitive advantages include its large direct sales force, a founder-driven management team that reinvests relentlessly to maintain a differentiated product suite and leading intellectual property portfolio, and a large installed base of clients with high switching costs where it consistently achieves client renewal and retention rates in the mid-90% range. We believe Oracle is well positioned to benefit from the continuing growth in data storage and enterprise application software, as well as the shift to cloud-based solutions.

A holding in the fund since inception, Oracle's most recently reported quarterly financials were strong and better than consensus expectations for revenues, earnings before interest and taxes (EBIT), and earnings per share (EPS). Including the company's recent acquisition



of Cerner, which was also a holding within our large and all cap growth portfolios, total revenue of \$12.3 billion rose 25% year over year in constant currency. Organic revenue, excluding the Cerner acquisition, rose 9% year over year and was also above consensus expectations. At \$10 billion, software sales represented 82% of total revenue and rose 14% year over year. Oracle's infrastructure business (53% of total software, cloud services and support revenue) grew 9% year over year – a sequential improvement from 7% growth in the previous quarter, benefiting from the company's autonomous database offering, which grew 50% in the quarter and already has thousands of customers following its 2018 launch. Oracle's cloud infrastructure grew by 69% versus the prior-year quarter. Oracle's applications business (47% of total software, cloud services and support revenue) generated 9% organic growth in constant currency. Driven by 26% growth in its strategic back office applications, which include its Fusion suite of cloud-enabled enterprise software solutions, the company experienced strong growth in several key cloud products such as enterprise resource planning (ERP), its NetSuite small-business ERP offering, and its software-as-a-service offerings, demonstrating the company's progress in transitioning to a cloud-based model and positioning the company to improve its growth rate over time. Collectively, the company's cloud revenues grew 48% year over year, and the company expects cloud revenues will grow in excess of 30% for the full 2023 fiscal year. While Oracle remains a world leader in its largest business segment, enterprise database software used in customer on-premise IT environments, the company continues to focus on transitioning its business from a traditional on-premise, up-front software licensing and maintenance revenue model to a cloud-computing subscription-based model where software revenue is recognized over the life of the client's contract. While there has been pressure on year-over-year overall revenue comparisons during this transition as up-front license revenue shifts to subscription revenue, we expect this to lead to faster growth over time due to a higher customer lifetime value as the transition progresses. The cloud model also allows Oracle to monetize its services and technology more efficiently and yield savings to the customer.

In Oracle's hardware segment, revenue of \$850 million rose 16% year over year, which was also above consensus expectations. The hardware business accounted for approximately 7% of total revenue and a smaller percentage of total cash flow. With the ongoing transition to the cloud and faster growth in its larger software businesses, we expect hardware to continue to decline as a percentage of revenue and cash flow. In its services segment (about 11% of revenue), revenue of \$1.4 billion rose 83% compared with the same quarter last year, benefiting from the acquisition of Cerner.

Even though the company is in the midst of a major business model transition, we believe Oracle's financials remain strong. Adjusted EBIT of \$5.1 billion rose 18% versus the prior-year quarter in constant currency and was above consensus expectations. Operating margins declined approximately 500 basis points to 41%, due primarily to the inclusion of Cerner, which we expect will improve over time as the acquired company benefits from Oracle's technology and scale. Over the trailing twelve months, Oracle generated \$8.4 billion in free cash flow, which rose 18% year over year and represented 18% of total revenue. Capital expenditures were up over 100% during that same period as Oracle continues to build capacity to support the strong growth in its cloud services. Following the acquisition of Cerner, the company continues to have a high degree of financial leverage, with long-term debt to capital of 82%. However, given its persistently strong cash flow and resulting debt servicing capability, we believe the balance sheet remains solid and expect the company to focus on decreasing leverage in the near to immediate term. We believe Oracle's stock price embeds free cash flow growth assumptions that are well below our long-term forecast. As a result, we believe its shares are selling at a significant discount to our estimate of intrinsic value and offer a compelling reward-to-risk opportunity.

- **Novartis** is a diversified global healthcare company with market leadership in branded and generic pharmaceuticals. Novartis's Innovative Medicines division accounts for about 80% of total revenue and 85% of core operating income while the Sandoz generics and biosimilars division accounts for about 20% of revenue and approximately 15% of core operating income.

A fund holding since inception, Novartis reported fundamentally solid quarterly financial results that were mixed with respect to consensus expectations due primarily to currency headwinds. Total revenues of \$12.5 billion rose 4% year over year in constant currency, below consensus expectations of \$12.9 billion. Core operating income rose 5% in constant currency, benefiting from higher gross margins due to continued productivity initiatives and operating leverage in Innovative Medicines that was partially offset by pricing pressure at Sandoz. Overall operating margins of 34.1% expanded 20 basis points year over year. We expect margins to continue to expand over time from ongoing productivity gains and consistent investment in innovation that we believe will drive new product launches and resulting operating leverage. Further, after formally announcing in 2021 that it had launched a strategic review of its Sandoz business focused on identifying the optimal ownership structure to maximize shareholder value, management announced that it would spin off 100% of the business to shareholders.

Novartis's Innovative Medicines reported a 4% increase in net sales year over year to \$10.3 billion in constant currency. Performance was led by strength in the company's established medicines such as Entresto for heart failure and Cosentyx for inflammatory diseases, which grew 31% and 7%, respectively, and continued to penetrate their markets. The company recently raised its estimates for peak sales in both drugs to \$7 billion for Cosentyx and \$5 billion for Entresto. Those two therapies generated \$3.7 billion and \$3.4 billion, respectively, over the first nine months of 2022. The company also benefited from recently launched Kesimpta, a therapy for multiple sclerosis that contributed \$289 million in sales which grew 172% year over year. We believe the company continues to execute well, which includes strong performance in its "growth" portfolio that now accounts for over 50% of sales. While competition from cheaper generics and newer therapies that have changed the standard of care continue to pressure mature products, no single product contributes more than 10% of revenues for the company. Novartis is continuing to focus on innovation, and in addition to a broad suite of growth and established products the company has a vast and well-balanced clinical pipeline of approximately 75 new molecular entities and approximately 150 projects in total that we believe will support continued long-term growth and profitability.

Reported sales at the Sandoz generics division increased 4% year over year in constant currency to \$2.2 billion. Despite continued pressure on the top-line from competition in retail generics and anti-infectives, management believes the business has begun to stabilize and the division has posted four consecutive quarters of top-line growth. We believe the division remains well positioned in its complex generics market, which is growing in size and relevance compared to the pressured retail generics business, and now comprises approximately 20% of Sandoz sales. Novartis continues to execute on its strategy of maximizing profitable growth by pairing Sandoz's scale in generic distribution with the company's expertise in biologics and investment in continued innovation in biosimilars. The spin-off of the division is expected to be completed in the second half of 2023.

We believe Novartis remains a differentiated business that will benefit from accelerating growth, continued solid execution, structurally improving businesses, and a strong management team that is making sound strategic decisions to enable greater focus on the



company's long-term competitive advantages of brand, scale, technology, and innovation. We believe the company is focused on and executing in the right areas of growth to create long-term shareholder value, and the current stock price embeds future growth below our forecasts. As a result, we believe the shares are selling at a significant discount to our estimate of intrinsic value and offer a compelling reward-to-risk opportunity.

Detractors

Amazon, Tesla, and CRISPR Therapeutics were the largest detractors to performance during the quarter.

- Online retailer **Amazon** offers millions of products – sold by Amazon or by third parties – with the value proposition to consumers of selection, price, and convenience. Amazon's enterprise IT business, Amazon Web Services (AWS), offers a suite of secure, on-demand, cloud-computing services, with a value proposition to clients of speed, agility, and savings. In both of its core markets, Amazon possesses strong and sustainable competitive advantages that would be difficult for competitors to replicate. In e-commerce, these include its brand, scale, technology platform, network advantage, and logistics and distribution systems. AWS benefits from its brand, technology platform, and massive scale which allows it to pass along cost savings while continuing to innovate. Growing well in excess of their underlying markets, both of Amazon's businesses are gaining market share. Led by visionary founder and Executive Chairman Jeff Bezos, Amazon invests aggressively to expand and leverage its customer base, brand, and infrastructure, targeting businesses with strong financial returns that are anticipated to offer large and enduring growth opportunities.

A fund holding since inception, Amazon's most-recently reported quarterly financial results were fundamentally solid and included revenue and operating profit that were above management guidance but in line with or below consensus expectations. The company also provided guidance for the fourth quarter that was below expectations for revenue and operating profit and reflected macroeconomic weakness the company began to experience in the third quarter. Amazon has been facing short-term cost inflation that contributed to an incremental \$4 billion in expense during the prior quarter. While a portion of the additional expense is outside of Amazon's direct control, including higher shipping, fuel, and labor costs, approximately two-thirds stemmed from Amazon's strategic decision to invest in labor to make up for Covid-related employee absences, as well as investments undertaken to ensure that its fulfillment and transportation network remained unconstrained during the pandemic. In the most recent quarter, the company reported \$1 billion of cost improvements driven by higher leverage of its fixed costs and productivity improvement in fulfillment. While expense pressures are expected to persist for the foreseeable future, the company expects to further lower costs in the first half of 2023. We expect that Amazon will continue to take steps to mitigate external cost inflation and that given its long-tailed secular growth opportunities, it will realize greater productivity and fixed cost leverage over time from its investments in labor, fulfillment, and distribution. We believe Amazon is one of the best-positioned companies in e-commerce and enterprise IT – in each case addressing large, underpenetrated markets that benefit from secular growth that is still in its early stages. In both of its core markets, we believe Amazon possesses strong and sustainable competitive advantages that would be difficult for competitors to replicate. The company's near-term expense challenges do not impact our long-term view of Amazon's quality, growth, or the attractiveness of its reward-to-risk proposition.

For the quarter, net sales of \$127 billion increased 19% year over year in constant currency.



E-commerce and related revenue, including third-party services, advertising, and retail subscription services such as Prime membership and digital media subscriptions, accounted for approximately 80% of total net sales and grew by a mid-teens percentage year over year. The company recently broke out its advertising revenue for the first time, which was \$9.5 billion in the quarter and grew approximately 30% year over year, well above the growth in advertising as a whole. North America accounted for approximately 74% of e-commerce and physical store sales, while Amazon's international segment contributed approximately 26%. Comprising 16% of total net sales at \$20.5 billion, AWS revenue grew 28% in constant currency compared with the year-ago quarter, significantly faster than our estimate for global enterprise IT spending. Amazon is the world's largest cloud vendor, almost two times the size of the next largest competitor, Microsoft, and as large as the next four competitors combined.

Amazon's sales mix has been shifting over the past few years to higher-margin product categories such as third-party e-commerce sales, AWS, and advertising. Gross margins for the quarter rose 150 basis points year over year to 45%. Overall, Amazon reported adjusted operating income of \$8.1 billion, down 1% compared with the year-ago quarter as the company continues to invest heavily. Overall operating margins declined 80 basis points from the year-ago quarter to 6.4%. From a segment standpoint, North America generated an operating loss of \$0.4 billion, and operating margins of -0.5% were below prior year margins of 1.3%. Amazon's international segment generated an operating profit margin of -8.9%, which declined from -3% in the prior-year period. AWS grew operating income by 11% to \$5.4 billion, with operating margins of 26% that declined 400 basis points versus the year-ago quarter. Over the trailing twelve months, the company generated positive operating cash flow of \$40 billion, but recorded a free cash outflow of \$19.7 billion due largely to capital expenditures, elevated cost pressures, and heavy investment spending. These near-term costs and investments do not impact our long-term view of the quality of Amazon's financial profile.

On a global basis, e-commerce represents approximately 12% of an estimated \$20 trillion of global retail sales outside of China, where Amazon does not have a substantial presence. We estimate that Amazon generated approximately \$550 billion in gross merchandise volume in 2021, which would represent market share of total e-commerce across these markets in the mid-20% range and approximately 3% of total retail sales. We believe a long-term, secular shift from traditional brick-and-mortar retail to e-commerce is still in its early stages and that e-commerce will come to represent a significantly higher portion of the global retail market. We believe Amazon's structural operational advantages, network effect, and relentless focus on customer service position the company to grow faster and more efficiently than its traditional or online retail competitors. We also believe AWS is well positioned in the nascent and underpenetrated cloud-computing services market. We estimate the segment can realize mid-teens compounded annual revenue growth with operating margins improving to the mid-30% range. As a result, we believe the long-term operating profit potential of AWS can approach 50% or more of the company's core retail opportunity. Over our investment time horizon, we believe Amazon can sustain low-teens revenue growth and faster growth in operating profits and free cash flow that is not currently reflected in the share price. As a result, we believe the company is selling at a significant discount to our estimate of intrinsic value and offers a compelling reward-to-risk opportunity.

- Founded in 2003, **Tesla** is the global leader in the design, manufacturing, and sales of high-performance fully electric vehicles (EVs). The company's automotive unit sells its products directly to customers through its website and retail locations and continues to



grow its customer-facing infrastructure through a global network of vehicle service centers, mobile service technicians, body shops, Supercharger stations, and Destination Chargers to accelerate widespread adoption of its products. Tesla also designs, manufactures, sells, and installs solar energy generation and energy storage products to residential, commercial, and industrial clients through its energy generation and storage unit. The company generates approximately 95% of its sales from its automotive segment and 5% from its energy generation and storage segment. From a geographic standpoint, the US and China are the company's two largest markets, accounting for approximately 45% and 25% of sales, respectively, while the rest of the world collectively accounts for approximately 30%.

We believe Tesla's strong and sustainable competitive advantages include its brand, focus and business model, scale, and entrepreneurial culture. With a mission that includes accelerating the world's transition to sustainable energy, no other brand is more-closely associated with EVs, and the company has become the dominant global EV manufacturer with over 20% global market share. Tesla's focus and business model have enabled it to substantially disrupt the automotive industry, maintain a first-mover advantage, and capture structural cost advantages. We believe it could take peers more than a decade to replicate Tesla's collective competitive advantages if they are able to do so at all.

A new purchase in the first quarter of 2022, Tesla's most-recently reported quarterly financial results were slightly below consensus expectations but nonetheless reflected impressive growth and profitability and included record revenue, operating profit, and free cash flow. Share price declines may reflect investors' concern with a slowdown in the pace of sales, especially in China, a decline in market share as measured by EV unit volume, recent price reductions, and Founder and CEO Elon Musk's purchase of Twitter, which raises potential questions both about Musk's focus as well as the risk that Musk's political views could alienate some would-be Tesla buyers. While we recognize these as legitimate concerns and continue to monitor each, they do not impact our structural investment thesis for the company. Due to economic weakness across many economies, in particular China, we have seen a slowdown in overall automotive sales which has also impacted the EV market. Tesla, while possessing a higher EV revenue share than its EV unit share, has seen both its unit and revenue share fall. However, this was largely a function of the company not yet having adequate capacity to meet global demand despite its factories operating at over 95% production utilization. Tesla recently expanded EV capacity through its Texas and Berlin factories which have increased its capacity from 1.3 million vehicles to over 2 million vehicles, which we believe will be sufficient capacity to meet future demand.

With respect to recent price reductions, the company has a pricing strategy under which it prices its vehicles to maximize overall profit dollars. Historically the company had reduced prices annually as it leveraged its growing scale to lower the total cost of ownership for potential buyers and drive EV adoption. However, over the last year as the company faced production limitations due to its already high production utilization, the company utilized pricing to recover elevated cost pressures while sustaining strong EV demand. Now with production utilization declining to approximately 70% due to the addition of Texas and Berlin Gigafactories, along with broader economic weakness resulting in weaker demand that we believe is short term, Tesla has reduced prices on its Model 3 and Model Y brands to spur demand. We believe this is the correct strategy as long as Tesla continues to protect its brand equity, which is one of the most important intangible assets for the Company. Given Tesla manufacturing factories have high fixed costs which benefit from scale, so increasing EV sales from current levels would improve production utilization and generate higher profit per vehicle. Even through this industry slowdown, Tesla has continued to show market share gains as a percentage of total light duty vehicles. We believe as near-term



cyclical economic weakness subsides overall automotive sales in China and other markets will recover and Tesla will grow even faster.

In 2022, based on Kantar Millward Brown's Global Brands research, Tesla expanded its already leading brand equity among automotive companies to more than twice that of its nearest competitor, Toyota. In addition, among all global brands surveyed, the Tesla brand ranked 4th with respect to brand equity growth in 2022, behind only Cartier, YouTube, and Google. We believe this reflects the company's still-strong brand equity and ongoing consumer loyalty and demand. And while we recognize that Musk's actions and statements as the owner of Twitter could potentially impact Tesla's brand with some consumers and prefer that his sole focus was on building and broadening Tesla's brand appeal to minimize risk, we will continue to monitor any long-term impact and continue to communicate with the company that protecting this great intangible asset is key to the future of the company.

We have invested successfully in a number of companies such as Oracle and Amazon where visionary founders have at times found themselves at odds with investors and the public in the course of creating tremendous shareholder value. While we continue to monitor any potential impact to Tesla, we view Musk's decision to step down as CEO of Twitter once he finds a suitable successor as a positive development. And while questions remain about his focus, we believe Musk has long demonstrated an ability to multi-task that exceeds most individuals. Even during Tesla's earlier days when it had yet to demonstrate long-term viability, Musk was also simultaneously running his SpaceX and Boring Co ventures. And while Musk is by far the most visible member of Tesla management, we believe the company has a strong team that includes many key engineers that have enabled the company to achieve its success to date. Importantly, given the long-tailed nature of the opportunity and the planning required to capture that opportunity, we believe the company has already taken the actions and established the road map that will help sustain its business over our investment horizon. The company has already constructed the factories that will support growth in its current line-up of EV models, and it has established plans for the build-out of future factories. The company's full self-driving (FSD) software, which we believe will drive substantial incremental profitability over the next decade, is already in beta testing and is now available to all cars capable in North America as of year-end. As a result, we believe the company's key value drivers are in place as a result of visionary, long-term decisions made long ago by Musk, and that execution should be far more seamless than during earlier phases of business development. Because of the platform he has built and the principles he has institutionalized, we believe the company's road map over the next decade is solid and could be successfully executed by a competent management team. Because much of the near-term planning has been done, it is already allowing Musk to focus his efforts on the next 15 and 20 years as he is doing with Tesla's research into robots and other initiatives. Finally, we believe Musk's ownership and compensation structure are closely aligned with the interests of long-term shareholders.

Gross margins declined from the previous quarter due to higher commodity inflation and production inefficiencies at its now ramped Berlin and Texas Gigafactories. However, operating margins expanded over 260 basis points year over year to 17%, and the company's trailing-twelve-month operating margins already exceed all major auto manufacturers. In October, the company announced that it was lowering prices on its Model 3 and Model Y vehicles in China after material price increases in 2021. While some have viewed these actions as evidence of softening demand (which has occurred) and growing competition in China, the new pricing level enables the cars to qualify for EV subsidies in China and is consistent with the company's history of passing on cost savings to consumers and lowering the total cost of ownership versus internal combustion engine



vehicles. Despite greater competition that includes a number of pure EV players, we believe Tesla's brand will enable it to sustain its China market share in the double digits, with a greater share of revenue and profits. As a result of EV market growth, we expect Tesla to expand its share of China's total light vehicle sales from the low-single digits to approach a mid-teens share. Importantly, while the EV market in China is currently growing in part due to the introduction of lower cost EVs from manufacturers that have yet to demonstrate profitability, contributing to a near-term decline in Tesla's share of EVs on a unit basis, we do not view these companies as Tesla's core competitors. We believe consumers buying EV models that can cost as little as 25% of some Tesla models are not likely Tesla buyers. In China, we estimate that Tesla's revenue share is two times its unit share, and that it captures an even larger share of the profitability of the industry as most competitors are still unprofitable.

We believe the secular growth driver for Tesla is increasing penetration of electric vehicles as a share of global automotive sales. Around the world, EVs accounted for almost 10% of new light vehicle sales in 2022, with penetration rates ranging from mid-single digits in North America to low double-digits in Western Europe and almost 20% in China. We believe the pace of EV adoption will accelerate, driven by advances in battery technology that will drive cost parity, lower ongoing cost of ownership for consumers, government incentives, and numerous global initiatives to phase out internal combustion engine sales over the next two decades. Tesla is the global leader in EV sales, with approximately 20% unit share, 25% revenue share, and a much higher share of industry profitability. While we expect competition to increase substantially, we believe Tesla's superior brand, focus, technology leadership, and strong ongoing consumer demand will help enable the company to maintain its leading global market share. Tesla recently announced an enhanced autopilot feature for customers who only want self-driving functionality on highways. While we believe most consumers will adopt full self-driving (FSD) functionality over the long term, at 50% of the cost of FSD, we believe the enhanced autopilot option will accelerate uptake of its software offerings. Both software offerings possess significant profit margins over the current company average and we believe they will drive strong profit growth. Over time, we believe uptake of high-margin software capabilities, which we believe can increase from 0% of profits today to approximately 25%, will contribute to expanding the company's already leading operating margins. We believe the assumptions embedded in Tesla's share price underestimate the company's significant long-term growth opportunities and the sustainability of its global market share. We believe the company's shares currently sell at a significant discount to our estimate of intrinsic value and thereby offer a compelling reward-to-risk opportunity. We took advantage of near-term price weakness to add to our position on multiple occasions during the quarter.

- Founded in 2013, **CRISPR Therapeutics** ("CRSP") is a leading gene editing company, based in Switzerland. CRISPR, an acronym for "Clustered Regularly Interspaced Short Palindromic Repeats," is a naturally occurring defense mechanism that protects bacteria against viral infections. Functioning as a "molecular scissors," the process enables the bacteria to cut viral DNA, thereby disabling the virus. Dr. Emmanuelle Charpentier, a CRSP co-founder, elucidated the mechanism and developed a methodology to adapt and simplify its use for human gene therapy – for which she and a collaborator were awarded the 2020 Nobel Prize in Chemistry. The resulting gene editing technology enables precise alteration of DNA that can "silence" or correct undesirable sequences, potentially enabling a next generation of curative therapies for genetic diseases. Today, the company is focused on developing transformative gene-based medicines for serious diseases in areas including hemoglobinopathies (a group of inherited blood disorders including sickle cell disease), oncology, regenerative medicine, and rare diseases.



A fund holding since the second quarter of 2021, CRSP reported quarterly financial results that demonstrated incremental progress across its clinical and pre-clinical therapies, including ongoing progress for its most advanced Exa-cel therapy for blood disorders (formerly known as CTX001) that was co-developed with Vertex Pharmaceuticals. However, shares traded down in line with other gene therapy peers that may have seen sentiment deteriorate following a hold by the FDA on a competitor's gene editing treatment for heart disease. In the US, Exa-cel has been granted Fast Track, Regenerative Medicine Advanced Therapy, Rare Pediatric Disease, and Orphan Drug designations. The FDA granted Exa-cel a rolling review, for which commercialization partner Vertex submitted its biologics licensing application beginning in November and expects to complete the submission by the end of Q1 2023. Outside the US, Exa-cel has been granted Priority Medicines status by the European Medicines Agency (EMA) and received the orphan drug designation in both Europe and the United Kingdom. The companies announced that regulatory submissions to the EMA and the UK's Medicines and Healthcare products Regulatory Agency were also expected in the fourth quarter of 2022.

In November, the company also provided updates for both parts (two different dosing approaches) of the Phase 1 clinical trial for its CTX110 CAR-T program, which uses the body's own immune system to fight cancer. The response rates were consistent with prior published data but remain below autologous CAR-T competition. However, CRSP's updated dosing strategy shows potential for improved efficacy and the safety profile remains well tolerated. CRSP's therapy also remains differentiated from autologous therapies which are patient-specific and can only be used to treat a single patient, while CRSP's allogenic, "off the shelf," CAR-T therapies can be derived from a single healthy donor and then used to treat many patients. Allogenic solutions have the potential advantages of enhanced speed to patient, wider availability, decreased cell variability, and streamlined manufacturing efficiencies. While the recent results could impact the timing of potential approval and ultimate market share opportunity for its CAR-T therapies, they do not impact our assessment of the quality of CRSP's platform, and we continue to expect the company to realize significant value from its CAR-T program.

During the quarter, the company announced that COO Lawrence Klein would step down at the end of the year after spending seven years with the company. Mr. Klein was a key member of CRSP's leadership and will continue to serve in an advisory role to ensure a smooth transition. We believe the company's strategy remains clear and unchanged and that the company's ability to execute is not impacted by the recent realignment of executives over the past few quarters.

CRSP has a number of therapies currently undergoing clinical trials but has not yet commercialized any therapies and remains pre-revenue. However, at scale, we believe the company can attain the economics of a successful biotech company, including operating margins that could exceed 40% and cash flow returns on investment that substantially exceed its cost of capital. The company's cash burn is averaging about \$150 million per quarter. With a \$1.9 billion cash balance, which equates to just over three years of runway, we believe the current cash balance will provide a sufficient funding bridge, and that potential approval of Exa-cel in the next year will enable the company to sustain cash generation sufficient to internally finance its operations and investments. We believe the expectations embedded in CRSP's market price substantially underestimate the potential of its curative therapies, its ability to rapidly innovate, and its structural advantages in the development process that should lift its probability of success compared to traditional biopharmaceutical therapies. We believe management is executing on a sound investment strategy that we expect to eventually generate meaningful free cash flow growth that is



not reflected in current expectations. As a result, we believe the company is selling at a substantial discount to our estimate of its intrinsic value and offers a compelling reward-to-risk opportunity.

Outlook

- Our investment process is characterized by bottom-up, fundamental research and a long-term investment time horizon. The nature of the process has led to a lower-turnover portfolio in which sector positioning is the result of stock selection.
- At quarter end, we were overweight in the communication services, consumer discretionary, healthcare, information technology, and industrials sectors. We were underweight in the financials and consumer staples sectors. We held no positions in the energy, materials, utilities, or real estate sectors.
- We remain committed to our long-term investment approach to invest in those few high-quality businesses with sustainable competitive advantages and profitable growth when they trade at a significant discount to intrinsic value. Though we have no stated portfolio turnover target, as a result of our long-term investment horizon, our estimated annualized portfolio turnover since the inception of the fund is approximately 10.8%. The overall portfolio discount to intrinsic value was approximately 47.1% as of December 31, 2022.

About Risk

Equity securities are volatile and can decline significantly in response to broad market and economic conditions. **Foreign and emerging market securities** may be subject to greater political, economic, environmental, credit, currency and information risks. Foreign securities may be subject to higher volatility than US securities due to varying degrees of regulation and limited liquidity. These risks are magnified in emerging markets. **Currency** exchange rates between the US dollar and foreign currencies may cause the value of the fund's investments to decline. **Investments in small and mid-size companies** can be more volatile than those of larger companies. **Growth stocks** may be more sensitive to market conditions than other equities as their prices strongly reflect future expectations.

MSCI All Country World Index (Net) is a free float-adjusted market capitalization-weighted index that is designed to measure the equity market performance of developed and emerging markets.

Outlook as presented in this material reflects subjective judgments and assumptions of the portfolio team and does not necessarily reflect the views of Loomis, Sayles & Company, L.P. There is no assurance that developments will transpire as stated. Opinions expressed will evolve as future events unfold.

Before investing, consider the fund's investment objectives, risks, charges, and expenses. Please visit www.loomissayles.com or call 800-633-3330 for a prospectus and a summary prospectus, if available, containing this and other information. Read it carefully.

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