Investment Process
We seek to invest in high-quality, undervalued companies with strong balance sheets and shareholder-oriented management teams.

Undervaluation
Determining the intrinsic value of a business is the heart of our research process. Intrinsic value represents the amount that a buyer would pay to own a company’s future cash flows. We seek to invest at a significant discount to our estimate of the intrinsic value of a business.

Business Quality
We seek to invest in companies with histories of generating strong free cash flow, improving returns on capital and strong competitive positions in their industries.

Financial Strength
We believe that investing in companies with strong balance sheets helps to reduce the potential for capital risk and provides company management the ability to build value when attractive opportunities are available.

Shareholder-Oriented Management
Our research process attempts to identify management teams with a history of building value for shareholders.

Team Overview
Our team has worked together for many years and has implemented a consistent and disciplined investment process. Our team is organized by geographic regions, but within those regions we are generalists who look across all industries. We believe this model enables our analysts to become broad thinkers and gain critical insight across all economic sectors.

Portfolio Management

Investment Results (%)

<table>
<thead>
<tr>
<th></th>
<th>QTD</th>
<th>YTD</th>
<th>1 Yr</th>
<th>3 Yr</th>
<th>5 Yr</th>
<th>10 Yr</th>
<th>Inception</th>
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<tr>
<td>Advisor Class: APDGX</td>
<td>-13.32</td>
<td>-15.23</td>
<td>-14.79</td>
<td>3.87</td>
<td>4.27</td>
<td>8.50</td>
<td>6.70</td>
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<tr>
<td>MSCI All Country World Index</td>
<td>-15.66</td>
<td>-20.18</td>
<td>-15.75</td>
<td>6.21</td>
<td>7.00</td>
<td>8.76</td>
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<tr>
<td>MSCI All Country World Value Index</td>
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<td>-12.34</td>
<td>-8.12</td>
<td>3.88</td>
<td>4.28</td>
<td>6.92</td>
<td>3.05</td>
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Source: Artisan Partners/MSCI. Returns for periods less than one year are not annualized. Class inception: Investor (10 December 2007); Advisor (1 April 2015); Institutional (17 July 2012). For the period prior to inception, each of Advisor Class and Institutional Class’s performance is the Investor Class’s return for that period (“Linked Performance”). Linked Performance has not been restated to reflect expenses of the Advisor or Institutional Class and each share’s respective returns during that period would be different if such expenses were reflected.

Expense Ratios

<table>
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<tr>
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<th>ARTGX</th>
<th>APDGX</th>
<th>APHGX</th>
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<tr>
<td>Semi-Annual Report 31 Mar 202212</td>
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<td>1.01</td>
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<tr>
<td>Prospectus 30 Sep 20211</td>
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<td>1.15</td>
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1Excludes Acquired Fund Fees and Expenses as described in the prospectus. 2Unaudited, annualized for the six-month period. 3See prospectus for further details.

Past performance does not guarantee and is not a reliable indicator of future results. Investment returns and principal values will fluctuate so that an investor’s shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than that shown. Call 800.344.1770 for current to most recent month-end performance. Performance may reflect agreements to limit a Fund’s expenses, which would reduce performance if not in effect.
As of 30 June 2022

Banking systems both in the US and across Europe are very well. There is a general labor shortage across the developed world. The US consumer is financially strong. Consumers today have

We are seeing an interesting phenomenon that we call “shadow rise enough to tame inflation given the unsustainably high levels of heading in the same direction as Japan, and the long-term question revenue going to service interest costs. The US and Europe are positive interest rate on its debt. It would be insolvent with all tax more than 258%, Japan simply cannot afford to pay even a mildly higher than it has been in decades. Despite this fact, the Bank of Japan has pledged to keep rates near zero. With government debt to GDP of about $2 trillion more in their bank accounts at the three largest banks alone than they did pre-COVID. Ironically, the massive US government stimulus payments that have helped create today’s inflationary blowout also provide a cushion of savings to drawdown through tough times. This is perhaps a perfect example of how deficit financed government spending can create nominal wealth but simultaneously erase it in real terms. A dollar borrowed in this case is a dollar lost to inflation.

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Inflation and rising rates impact asset values in different ways. We are already seeing higher interest rates on car loans, credit cards and mortgages, which will inevitably lower demand. Higher rates will also impact corporations’ willingness to borrow on concerns that the cost of servicing existing debt will reduce earnings power. The impact of inflation is worse. It erodes purchasing power for everything, not just for financed activity. We see its impact on corporate earnings power. Even businesses with strong pricing power struggle to raise prices fast enough to offset the pressure of rising labor costs and/or raw materials. Simplistically, inflation robs pretty much everyone, whereas higher interest rates only rob those who must borrow. This is why we think reducing inflation must be the first priority even if it causes a recession. A stable currency is the foundational principle for a healthy economy.

It seems certain the economy will slow as a result of both inflation and rising rates. How severe will the slowdown be? We will leave the answer to that question blank (thank you Woody), but we will make some observations.

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- Banking systems both in the US and across Europe are very well capitalized. Banks have the ability to absorb recessionary-level credit losses without having to hoard capital to protect balance sheets and capital ratios.
- There is a general labor shortage across the developed world. Either workers are afraid to go back to work due to COVID-19 (unlikely given the level of immunity achieved in most places except China), or they would rather live off of savings. At any rate, demand for workers currently exceeds supply. We think a severe recession is unlikely when anyone who wants a job can find one. At worst, we enter a downturn from a position of labor market strength.
- We are seeing an interesting phenomenon that we call “shadow demand.” Many companies currently cannot meet existing demand for their goods and services. Order books and backlogs are, in many cases, at record levels, but because of labor shortages and supply chain constraints, these orders cannot convert into sales. The reduction of economic activity, if it occurs, may erode...
Supply chains have not yet normalized, but as they do, the supply imbalance currently contributing to inflation should ease. The question is whether supply chain normalization can forestall a meaningful decline in demand. Of course, it would be better to burn off inflationary pressures from the supply side rather than entirely from the demand side. All eyes are on China, the supply chain of the world, as it continues to operate an irrational and ultimately doomed zero-COVID policy.

The risk of a severe recession is far greater in Europe than the US. Europe—especially Germany—has ceded its energy independence to Russia. Should Russia permanently shut off the flow of gas to Europe in retaliation for economic sanctions against it, large parts of Europe will not have enough gas to run factories and heat homes. Indeed, the economic health of Europe today rests in the hands of Vladimir Putin.

Portfolio Discussion

The downdrafts this year have been one of the swiftest in market history. All but six of our securities declined in value, though most share price declines reflect the fear of a downturn that may or may not materialize. Evidence of recessionary pressures are not yet visible in most cases, but the coming few quarters will be very important in gauging the impact of inflation and interest rates.

Our best performers during the quarter were BAE Systems, Alibaba and Danone.

BAE was up 18% in local currency terms and up 9% in US dollars (USD). BAE has benefited this year from the war in Ukraine. Defense budgets in the US and Europe, which make up the bulk of BAE’s activity, are not going down over the next several years and will almost certainly go up. All indications in Europe suggest that years of stagnant to declining defense spending are about to reverse, though increased defense spending will take quite some time to filter into BAE’s financial results. We are faced with a conundrum. At 14X-15X earnings, BAE is no longer obviously cheap. But its fundamentals are significantly stronger than they were before the war. Our first and strongest instinct as value investors is to sell, but at the same time, we recognize its fundamentals have improved. We have trimmed the position slightly and invested the proceeds into some other companies that appeared much more steeply discounted. It is a balancing act.

Alibaba rose 4% during the quarter. We would love to say the share price performance was due to strong operational performance. Unfortunately, that was not the case. The most recent earnings results showed its core e-business still had not returned to growth, primarily due to the difficult retail environment caused by the government’s zero-COVID policy. Alibaba also appears to be losing market share due to its product mix tilted toward apparel and cosmetics, categories currently stalled in this environment. The share price performance this quarter was largely a function of exogenous items—specifically, government actions in the form of stimulus to support the economy and less regulations.

Despite the poor recent results, Alibaba remains a powerful economic engine. It is a global leader in e-commerce and cloud computing, both of which should grow nicely over time. Management has started taking actions to improve profitability, which has been burdened by significant investment in loss-making business ventures. The financial results should improve significantly when China’s economy starts to recover from COVID-19 outbreaks. The shares are incredibly cheap and have some of the highest upside potential in the portfolio. Even embedding significant losses from new ventures, we estimate they are trading at 11X-12X unlevered earnings. In our view, the shares could double, and they still would not be expensive.

Danone increased by 11% this quarter in euros but only by 4% in US dollars as the euro declined versus the dollar. Danone certainly faces challenges. Its new leadership has charted a compelling course for value creation and long-term margin expansion, although inflation is pressuring margins as it is for most consumer goods companies. However, the strength of its brands and the relative consistency of demand for food has protected its top line. In addition, Danone’s cost cutting and margin expansion efforts are helping blunt margin pressure from rising raw material costs.

Our worst performers this quarter were Expedia, Samsung and Meta.

Expedia declined 52% during the quarter due to concerns a consumer recession will reduce spending on discretionary items like travel, as well as concerns that the company is losing market share to other online travel agencies. While the fears of a potential recession are real, the current environment is actually pretty good. This summer will be one of the busiest travel seasons. As recently as June, Expedia’s management signaled it had yet to see any signs of a slowdown. It could certainly happen, but it has not yet.

Recent results, while strong, did show a slower recovery compared to peers. Part of the shortfall in performance is explained by mix. The other part is due to the company’s decision to restructure its business during the pandemic. Over the past two years, Expedia made significant changes to improve structural profitability by cutting off unprofitable partners, geographies and marketing channels. The business is somewhat smaller but should be stronger and far more profitable than it was prior to the pandemic.

Benefits from Expedia’s improvements are already visible and should continue into next year as they are fully implemented. The improvements should help the company shift to a less transactional business model that creates more durable relationships with customers and drives good profit growth into 2023. The company announced unit economics had already improved and plans to...
provide new disclosures allowing investors to track the performance of its improvements.

Expedia’s shares are now trading around the same level as during the middle of the pandemic. It is hard to imagine any recessionary scenario that could equal the middle of COVID-19 when travel was essentially non-existent. Looking through this, we estimate normal earnings power in the $11-$12 per share range, which puts the shares at 7X-8X normal earnings.

Samsung declined 23% during the quarter as investors began to anticipate the impact of a recession on consumer purchases of smartphones, laptops and other gadgets. Unlike Expedia, the most recent data showed a slowdown in some tech-related products. The demand for consumer gadgets declined sharply in June, which we believe was mostly driven by reduced economic activity due to COVID-related lockdowns in China. Notably, the demand for many other tech products like servers remains strong.

The investing community is myopically focused on near-term demand, but longer-term outlook for Samsung’s memory chips is bright. The demand for its chips benefits from secular growth in cloud computing, IoT, 5G smartphones and connected automobiles. These entrenched secular trends are showing no signs of reversing, and we believe the demand for memory chips will be significantly larger over a number of years.

More importantly, the core of our investment case centers around the supply side. The market for memory chips is highly consolidated among three rational players. We are confident the industry will make the necessary corrections to ensure supply and demand will remain in reasonable balance. So far, all signals suggest the industry is already moving to reduce supply and balance the market.

Samsung’s share price movement represents a good example of how you can make money by extending the time horizon. This is a business with dominant market shares in a secular growth market that makes products essential to enabling many of the most highly valued technology trends. The balance sheet has 30% of the market cap in net cash and securities. Yet, because of near-term demand concerns, the shares are available for purchase at 4X EBIT and 6.5X unlevered earnings. To us, this represents a highly compelling investment regardless of what the near-term cycle brings.

Meta declined 27% during the quarter. Investors are anticipating a recessionary downdraft and a subsequent decline in advertising activity. For Meta, this comes on top of multiple other factors that were already pressuring its business, including Apple’s new privacy standards, new regulatory rules, competitive issues and rising costs—we outlined in detail last quarter. While these factors will pressure profits this year, we continue to believe this is a fundamentally attractive business with a unique collection of massively scaled media assets. We also continue to believe in the stewardship of Mark Zuckerberg, who recently signaled the willingness to implement cost discipline to help protect profitability. Meta shares trade at ~10X cash-adjusted earnings, which we believe to be a great price for a company that should grow over time.

We were fairly active this quarter. We sold out of both GSK and Booking as they reached our estimates of intrinsic value. Proceeds from these sales as well as cash on hand were reinvested into three new names: Sensata Technologies, Daimler Truck and Lam Research.

Sensata is a manufacturer of sensors and electrical components used in automotive, heavy vehicle, HVAC, appliance, aerospace and other industrial markets. Automotive is the largest end market at about 60% of its revenue. The business has a few important characteristics. Sensata’s products are IP-driven and mission critical, but represent only a fraction of its customers’ total bill of materials. Once it wins a design, its products are integrated into customers’ systems after significant R&D, testing and certification by the customers. This creates high switching costs and a powerful incumbency advantage. Sensata is typically the sole source provider for, and has high market shares in targeted applications. Electrification is driving higher sensor content, and this translates into Sensata considerably outgrowing end markets. Management expects Sensata to outgrow its end markets by 4%-6% per year. The rapid growth of battery electric vehicles (BEVs) is a powerful tailwind for Sensata.

We acquired the shares at 9X normalized earnings. In the near term, investors are concerned about inflation and the potential recessionary impact on Sensata’s end markets, though we would note its largest end market (automotive) is still meaningfully below its 2017 unit volume peak.

Daimler Truck is a leading commercial vehicle manufacturer, selling trucks under the Freightliner brand in the US and trucks and buses under the Mercedes-Benz brand in other markets. Daimler Truck is the largest truck manufacturer in North America with about 39% market share, and the second largest in Europe with approximately 19% market share. The company was recently spun out of Daimler AG (the former parent is now renamed the Mercedes-Benz Group and sells passenger cars under that brand). We followed the spin-out process and purchased shares upon weakness as markets reacted to the Russia-Ukraine war and broad-based economic slowdown risks.

Truck industry fundamentals are strong. The industry is consolidated around a few large and rational participants. Trucks are purchased by professional buyers who use these assets for productive purposes. As such, total cost of ownership and return on investment drive purchase decisions. Freight rates are currently elevated, which supports strong order books for Daimler and its peers. Meanwhile, supply has been constrained by semiconductor and global logistics shortages. Therefore, while market demand is relatively strong, 2022 industry volumes will be closer to average than peak or trough levels.

Through the cycle, margin expansion is central to the investment case. Strong margins at the market-leading North American business have
masked underperformance in Europe and Latin America. The company has laid out detailed targets to cut costs and improve margins in these underperforming areas. In 2018 and 2019, Daimler Truck earned industrial operating margins of just under 6%. It now targets double digits in a benign environment and, perhaps most importantly, margins of 6%-7% in an economic downturn. The company has also changed the underperforming segment’s management.

The balance sheet is healthy. The company finished its most recent quarter with approximately 4 billion euro of net cash in the industrial business (after subtracting its pension liability). The company has a captive financial services business that is capitalized at a reasonable 10X assets/equity. We purchased the shares at an attractive multiple of about 12X down cycle earnings and about 7X current earnings.

Lam is one of the world’s largest suppliers of semiconductor wafer fabrication equipment (WFE). Manufacturing semiconductors is incredibly complex with tolerances measured in nanometers. Consistent improvements in technology are necessary for manufacturers to improve the cost, functionality and volume of semiconductors. WFE manufacturers such as Lam provide the necessary machines and technology. The WFE industry is highly consolidated with only five global players holding more than two thirds of the market. Because of the value-added nature of the equipment and services, the industry is highly profitable with margins and returns on capital that most CEOs can only dream of.

The long-term outlook for semiconductor demand, and hence for WFE, is very good. The semiconductor industry has grown faster than GDP, and we believe it will continue to do so over the long term, driven by digitization, cloud computing, artificial intelligence and machine learning. Data generation has also been growing at a rapid rate and driving greater demand for the semiconductors needed to process, analyze and store it. While these trends should continue to drive increases in semiconductor content in mainstay end markets such as PCs, smartphones and servers, semiconductor content is proliferating into new end markets including autos and industrial applications.

The industry, however, is cyclical. WFE buyers can reduce investment in any given period in order to adapt to slower end markets and to allow end markets to absorb inventory. This of course translates into lower revenues and profits for WFE suppliers such as Lam. Anticipation of a slowdown has lowered Lam’s share price by about 40% YTD to less than 10X EBIT. We can argue why Lam’s earnings will hold up relatively well over the next year, including a record order book, the benefits of easing supply chain pressures on its margins and a general shortage of semiconductors in the world. The strategic and geopolitical importance of semiconductor manufacturing is now evident as a result of COVID-induced semiconductor shortages, which has led to a bill making its way through Congress that would incentivize construction of new fabs in the US. Those are the positives. We can also argue why earnings will decline in the near term as the economy slows. We believe the current valuation of under 10X EBIT already reflects a moderate, though not severe, slowdown. We would note that EBIT has more than doubled over the past five years despite a short-lived down cycle in 2018-2019. During this downturn, Lam’s EBIT declined more than 20%, though trough EBIT margin was still a healthy 27% and return on capital hovered above 60%. Free cash flow that year also grew as working capital reduced due to lower production activity. Management took advantage of the share price weakness to aggressively buy back shares, reducing share count by more than 10%. We expect management is now behaving similarly given its policy of returning 100% of cash flow to shareholders, primarily through share repurchases. The balance sheet is pristine with a net cash position.

Clearly, the economic and market environment is volatile and painful. Headlines tout “uncertainty,” market code for staying away. This is a familiar refrain to us and one that recurs in all down markets. Do not be fooled: the future is always uncertain. It feels more certain when the recent past was pleasant and less so when the recent past was painful. Things seemed pleasant and certain in December 2019, and then COVID-19 came out of nowhere to collapse the economy and markets. Things felt awful when global equities lost 21% in Q1 2020. But those were actually the good times: the market rallied 77% off its March 2020 lows through December 2021. This year we have just suffered a 20% downdraft from those levels. The lesson is clear: nobody knows what is going to happen. In the same way that inflation, a war and rising interest rates seemingly came out of nowhere, the winds of change can blow at any moment. Inflation can ebb. The much-anticipated recession may or may not arrive, and if it does, it will pass. The war in Ukraine could end. And so on. Our crystal ball is as hazy as everyone else’s. We choose to anchor our behavior on valuations and what we see is attractive.

The discount to fair value in the portfolio is 50%, a level rarely seen in our multi-decade careers. Many of our holdings are trading at rock bottom valuations. A few examples include:

- Samsung under 9X earnings and closer to 6X when adjusted for its large cash pile
- Meta under 10X earnings adjusted for its net cash
- BNY Mellon at 8X earnings
- UBS at 7X earnings
- HeidelbergCement at 5X earnings
- Expedia at 7X-8X earnings

We do not know the trajectory of earnings or markets in the near term. But valuations are pessimistic, implying large declines in earnings power for many businesses today. We are feeling greedy and adding to our own already substantial holdings.
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