

# Artisan Global Discovery Fund

Investor Class: APFDX | Advisor Class: APDDX | Institutional Class: APHDX

# **Investment Process**

We seek to invest in companies that possess franchise characteristics, are benefiting from an accelerating profit cycle and are trading at a discount to our estimate of private market value. Our investment process focuses on two distinct elements—security selection and capital allocation. We overlay our investment process with broad knowledge of the global economy.

We seek to identify companies that have franchise characteristics (e.g., low-cost production capability, possession of a proprietary asset, dominant market share or a defensible brand name), are benefiting from an accelerating profit cycle and are trading at a discount to our estimate of private market value. We also assess key environmental, social and governance (ESG) issues that could impact future stock returns. We look for companies that are well positioned for long-term growth, which is driven by demand for their products and services, at an early enough stage in their profit cycle to benefit from the increased cash flows produced by the emerging profit cycle.

# **Capital Allocation**

Based on our fundamental analysis of a company's profit cycle, we divide the portfolio into three parts. Garden<sup>SM</sup> investments are small positions in the early part of their profit cycle that may warrant more sizeable allocations as their profit cycle accelerates. Crop<sup>™</sup> investments are positions that are being increased to a full weight because they are moving through the strongest part of their profit cycles. Harvest<sup>SM</sup> investments are positions that are being reduced as they near our estimates of full valuation or their profit cycles begin to decelerate.

# **Broad Knowledge**

We overlay the security selection and capital allocation elements of our investment process with a desire to invest opportunistically across the entire global economy. We seek broad knowledge of the global economy in order to find growth wherever it occurs.

# **Team Overview**

We believe deep industry expertise, broad investment knowledge, a highly collaborative decision-making process and individual accountability are a powerful combination. Since the inception of the team, we have been committed to building a team of growth investors that retains these attributes and is solely dedicated to our process and approach.

# Portfolio Management



Portfolio Manager (Lead)





Matthew H. Kamm, CFA Portfolio Manager



Craigh A. Cepukenas, CFA Portfolio Manager

Average Annual Total Returns

# Investment Results (%)

As of 31 December 2020	QTD	YTD	1 Yr	3 Yr	5 Yr	10 Yr	Inception
Investor Class: APFDX	16.95	45.70	45.70	26.27	_	_	25.84
Advisor Class: APDDX	17.00	45.83	45.83	26.30	_	_	25.87
Institutional Class: APHDX	17.05	45.90	45.90	26.32	_	_	25.89
MSCI All Country World Index	14.68	16.25	16.25	10.06	_	_	11.90

Source: Artisan Partners/MSCI. Returns for periods less than one year are not annualized. Class inception: Investor (21 August 2017); Advisor (3 February 2020); Institutional (3 February 2020). 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 (% Gross/Net)	APFDX	APDDX	APHDX
Annual Report 30 Sep 2020 <sup>1,2</sup>	1.35/—	1.74/1.303,4	1.20/—3
Prospectus 30 Sep 2019 <sup>2</sup>	1.41/—	1.355/—	1.255/—

<sup>1/2</sup>xcludes Acquired Fund Fees & Expenses as described in the prospectus. 2/See prospectus for further details. 3/For the period from commencement of operations 3/Feb 2020 through 30/Sep 2020. 4/Net expenses reflect a contractual expense limitation agreement in effect through 31 Jan 2021 as well as a voluntary expense limitation agreement beginning 3 Feb 2020 which will continue until terminated by Artisan Partners. <sup>5</sup>Includes estimated expenses for the current fiscal year.

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.

# **Investing Environment**

Despite heightened volatility in the final months of the year, equity markets proved resilient and surged to new record highs. Higher forward Street estimates aided the move higher, though multiple expansion played a larger role. Financials, energy and materials—sectors suffering the most in the pandemic's depths—led, and consumer staples, health care and real estate, while positive, lagged. Small cap stocks led as capital seemingly rotated out of large-cap stocks that provided shelter throughout much of the year. Emerging markets outperformed developed markets.

Several developments in Q4 began clearing the dark clouds that hung over the market throughout the course of the year—a timeline for COVID-19 herd immunity, unclear terms of UK's exit from the EU, US political discord and uncertainty. A couple of viable COVID-19 vaccine clinical trials released data and showed ~90% or greater effectiveness in preventing the disease, and a vaccine rollout commenced shortly thereafter. The US enters 2021 under Democratic control of the legislative and executive branches of government. Several new forms of legislation—green energy legislation, further expansion of the Affordable Care Act, further COVID-19 stimulus, tech-sector regulation, partial or full reversal of the 2017 tax cuts—could be on the table. That said, markets appeared relaxed about the implications of these proposals, even though not all would be positive for profits.

The US economy experienced further recovery from its spring lows in Q4. The unemployment rate dropped further to 6.7% from the 14.8% high in April, and the seasonally adjusted annualized rate of quarter-over-quarter GDP growth is expected to come in at 8.7% in Q4 vs. the -31.4% low in Q2. Looking ahead, many economists are forecasting a reacceleration of GDP growth in 2021 (5.3% vs. -3.5% in 2020 per Goldman Sachs).

Central banks appear cautiously optimistic in their outlooks after the game-changing developments/announcements in Q4. Widespread vaccine rollout and adoption should prompt governments to gradually encourage their respective residents to return to their prepandemic activities. That said, cases climbed higher throughout the quarter and a new strain of the virus that is as high as 70% more contagious emerged in the UK. Historically low benchmark interest rates and asset-purchase programs appear to be the norm until there is more compelling evidence the virus is under control.

# Performance Discussion

Our portfolio outperformed the MSCI AC World Index in Q4. Reflecting on the full year, we were pleased with our absolute and relative performance as the portfolio delivered both the highest absolute and relative returns since the strategy's inception in 2017. However, we caution maintaining this pace of appreciation is unlikely, though the team remains focused on outperforming over full market cycles.

Amid the market mania in the spring, our decision to mostly stay the course, stick to our time-tested investment process and recognize early that many of our companies would be beneficiaries from the

pandemic (digitization in business, health care and education) generally paid off. The team's focus on high-quality franchises with strong balance sheets and strong profit cycles helped us enter 2020 with a portfolio able to mitigate risk during the initial market panic phase of the pandemic. We then took advantage of the extreme volatility in March and April to add to existing holdings which we believed would benefit from or weather the storm, opportunistically add new positions to the portfolio and take prudent risks in companies which were suffering from the pandemic's economic impact but which we thought would thrive on the other side of the crisis.

Stock selection in the Crop<sup>SM</sup> and within three of our four power alleys drove relative outperformance in the year. Our software holdings thrived amid the pandemic—namely, Zoom Video Communications, Atlassian, Zscaler and Blackline. The trends these franchises are enabling (and leading)—the shift to cloud computing, enterprises' digitizing their operations—were resilient and in several cases accelerated. Biotech and life sciences tools and services were also standouts, continuing to discover and develop new devices and therapies we believe will have meaningful benefits for patients. Finally, the portfolio benefited from what we didn't own in 2020, since entering the year we saw very few interesting profit cycle opportunities among companies operating within areas of the economy that proved weaker through the pandemic—energy, travel/leisure and real estate.

Turning to individual securities, among our top Q4 individual contributors were Blackline, Vestas Wind Systems and Lattice Semiconductor. Blackline develops cloud-based accounting software that helps businesses improve and automate complex, manual and repetitive accounting processes. The company has been delivering solid results, upselling existing customers and landing new accounts. We believe the growth runway remains compelling as its solutions can lead to cost savings, enhance real-time visibility and improve data integrity.

We trimmed our position in Vestas during the quarter as shares reached our estimate of PMV. However, we believe the global power grid transition to renewable energy sources is still in the very early innings. We are seeing utilities increasingly transition their power grids to renewable sources of power due to increased regulation and ongoing improvements in economics—declining equipment, financing and development costs and more efficiencies in the power-generation process. We also expect the addressable market for utilities companies to grow in the coming years as battery electric vehicles reach price parity with internal combustion engine vehicles, placing increasing demand on the power grid. As the leading onshore wind turbine producer and servicer, we believe Vestas is well-positioned to be a disproportionate beneficiary of these tailwinds.

Lattice Semiconductor is a vendor of field programmable gate array (FPGA) chips used in personal computers, 5G infrastructure, routers and switches, and servers, to name a few. The company now has a

new board and management team—the current CEO joined from leading microprocessor provider Advanced Micro Devices in late 2018—which have embarked on a product-transformation journey. The company has refreshed its FPGA products in the small/low power segment of the market—making it more focused on addressing high return-on-investment use cases centered around power-efficient applications—carving itself a niche behind the two market leaders focused on high-end, Xilinx and Intel Corporation. In addition to providing FPGA chips to data centers and new 5G infrastructure—particularly compelling opportunities given these end markets are and will likely continue benefiting from strong secular tailwinds—we believe the company is well-positioned to tap into low-power/reprogrammable chips as well as industrial and automotive end markets.

Among our bottom contributors in Q4 were Zoom Video Communications and Boston Scientific. Shares of Zoom Video Communications were pressured amid the strong vaccine data released during the quarter. Furthermore, the company's Q3 results, though incredibly strong, showed signs of deceleration from prior quarters' torrid pace. While there will be a reduced need for some videoconferencing use cases on the other side of the pandemic, we believe there is a strong case to be made that the pandemic has prompted a permanent inflection in videoconferencing's importance—given sustainably higher remote work arrangements, more online learning options and less business travel. Furthermore, the company's dramatically expanded user base (up 485% YOY in Q3) positions it well to cross sell additional services, Zoom Phone in particular. The long-term future remains bright, but we acknowledge the near-term headwinds and have trimmed our position to a modest size.

Shares of Boston Scientific were pressured in Q4 alongside the cancellation of its transcatheter aortic valve product Lotus Edge. We acknowledge the modest disappointment, but we believe it will be slightly accretive to earnings in the near term. Longer term, we believe the company's investments over the past five years in higher growth categories—structural heart, peripheral interventions, international oncology, atrial fibrillation in particular—position it well to improve its margins and grow revenue at a rate on the higher end of its peer group. Given this backdrop and the Lotus news more than accounted for in the share price, we added to our position at an attractive valuation.

# Portfolio Activity

We started new investment campaigns in Bentley Systems and Chegg. Bentley Systems is the leading provider of infrastructure engineering software used to design roads, bridges, tunnels, rail systems and other public works. We believe there is a meaningful opportunity for infrastructure spend on IT over the next decade given an increased focus on improving the productivity and efficiency of design, build and maintenance. In addition, infrastructure is one of the least digitized verticals of the economy, and there are significant opportunities for software to increase its share of spending. We

believe this opportunity is particularly compelling in the Asia Pacific region (China, India), which is expected to represent the bulk of global infrastructure spending over the next couple of decades as the region grows to nearly half of global GDP and population over this timeframe.

Chegg is a digital education platform which provides online math, writing and other learning services with a low-cost monthly subscription. The company is well-positioned to help students who may not have access to traditional assistance resources. We also suspect the pandemic is accelerating many longer-term changes in higher education—more remote learning, more focus on student outcomes, pressure on tuition—and we believe Chegg will be a beneficiary. Given this tailwind, the opportunity to add new customers in a lightly penetrated US market (~25%-30% of higher-ed enrollments today), the company's expansion into international markets and the addition of new services such as online coding certifications, we believe the profit cycle ahead is compelling.

We concluded our campaigns in Varta and Cintas during Q4. Varta is the world's leading manufacturer of microbatteries for hearing aids, wearable electronics and industrial applications. We initiated our campaign in mid-2018 on the strength of the growth runway in the wearable device business, which has become more important as smartphones have matured and electronics producers look for new ways to drive sales growth. We saw Varta as one of the only producers capable of serving this market as these batteries have complex wireless connectivity needs that require high energy density in small form factors, with high reliability and fire-safety requirements. Furthermore, its expertise in high-volume manufacturing and decades of experience shrinking batteries via its proprietary winding equipment gave it a further competitive advantage over peers and customers that use the batteries in their end products. That said, we believe rising competitive threats and a shift in the company's business mix could weigh on its growth in the upcoming periods, and we decided to end our successful campaign.

We have held Cintas since the portfolio's inception on the thesis that the acquisition of G&K created significant opportunities for revenue and cost synergies. We had high confidence in Cintas' management team to achieve those synergies, and we have been rewarded accordingly for that conviction. We think the stock's valuation now more appropriately reflects the strength of the franchise and profit cycle, and therefore we ended our successful campaign.

In addition to Boston Scientific, we added to our position in Zynga. Our multiyear investment campaign in Zynga has been based on a new management team's ability to drive steady growth in the company's base portfolio of games, expand margins, reinvigorate the new game development pipeline and use its strong balance sheet to acquire complementary games and studios. Shares have been pressured in recent quarters, presumably because of investor concerns about the company's moderating growth rate and Apple's pending new privacy policy which will make it more difficult for Zynga

to both efficiently acquire new players and sell advertising in its games. We believe the company has multiple growth levers it can pull in the periods ahead, including the rollout of new games, acquisitions, further penetration into international markets and entry into new gaming categories, to name a few. Furthermore, our research suggests the Apple privacy policy change is manageable for larger mobile game developers such as Zynga. Given our strong conviction in the profit cycle, we used recent weakness to add to our position.

In addition to Vestas Wind Systems and Zoom Video Communications, we trimmed our position in Lonza Group. Lonza is a leading supplier to the biotechnology, pharmaceuticals and specialty ingredients markets. The company is capitalizing on an expanding pipeline of biologic drugs and a growing interest in applying pharmaceuticals technologies to the manufacturing of consumer products with health claims. More recently, Lonza has experienced significant demand from the many biopharmaceuticals companies seeking to partner with it to manufacture and rapidly bring new COVID-19 therapeutics and vaccines to market—with a notable partnership to manufacture Moderna's vaccine. However, with shares approaching our estimate of PMV, we pared our exposure accordingly.

### Portfolio Statistics

As of December 31, the portfolio had a median market cap of \$17 billion and a 3-5 year forecasted weighted average earnings growth rate of 15%. Our holdings were selling at a weighted harmonic average P/E (excluding negative earnings) of 40X FY1 earnings and 34X FY2 earnings. As of quarter end, we held 60 positions. Our top 20 holdings accounted for roughly 50% of portfolio assets as of quarter end. Our top 30 holdings represented about 66% of portfolio assets.

# **Our ESG Journey**

Over the last 12 months, we have delved into various aspects of our ESG journey in these letters. As we close the year and look ahead to 2021, we reflect on the meaningful progress our team has made this year. We feel good about the accomplishments we made in the second year of this journey, and while relatively early in our integration efforts, we believe the framework we have incorporated has elevated our investment process.

Our analysts and portfolio managers devoted considerable time and effort in 2020 assessing and identifying the key ESG risks and opportunities for each of our existing and prospective holdings— Issues that Matter Assessments (ITMAs) in our nomenclature—as we introduced in our Q4 2019 commentary. Nearly all our holdings have gone through this process, and we have found it beneficial to how we think about the investment case for each of our holdings. This exercise has also laid the groundwork for our engagement activities, which have notably ramped up in recent quarters.

We also took an enhanced approach to the 2020 proxy season. While we have always reviewed and voted on proxy items, in 2020 we undertook a review of our process and instituted a more systematic approach to both non-routine items, such as compensation plans and

shareholder proposals, as well as more routine items, such as uncontested director elections. We paired these reviews with selective engagements to hear management teams' views and express our own. We then cast our votes based on the merits of the specific proposals as written, each company's responsiveness to our concerns and its historical and expected direction of travel on the topics.

We believe the consideration of ESG factors across all types of organizations will continue taking hold as the global business community evolves from a profits-first mentality to a stakeholder mentality. We are encouraged by the foundation we have established through the implementation of an ESG framework that cohesively fits with our investment process and are pleased with the team's effort to adopt and operationalize it. As we round the corner and think about our goals for 2021, we look to build upon the momentum of this year. We will continue to refine and enhance our ESG integration capabilities through repetition, iteration and proactive efforts to develop the team's ESG-related knowledge and expertise. We look forward to communicating our efforts in more detail in our first ESG report set for publication by Q2.

# Perspective

In last quarter's letter, we wrote that two imminent events—the first Phase III data from COVID-19 vaccine programs and the US presidential election—would be important determinants of the economic outlook. The vaccine data from both the Pfizer/BioNTech and Moderna trials were incredibly positive—a testament to the scientists and clinicians who moved mountains to develop these products at record (warp) speed, as well as to the power of modern biotechnology tools that have long attracted us to innovative biopharmaceuticals franchises. While the initial rollout of the vaccines has been frustratingly slow, we hope and expect health care systems around the world will rise to the occasion in the coming months to match the companies' accelerating production schedules. If so, the pandemic could be largely over by mid-2021, which (among other obvious benefits) should enable a sharp recovery in economic activity for affected industries.

While the recent US political turmoil has been heartbreaking, the federal government's near-term profile actually seems quite clear following the run-off Senate elections in Georgia: Democrats now control the presidency and (by very slim margins) both houses of Congress. We expect the new administration to focus on vaccine distribution, economic recovery, clean energy and economic inequality (minimum wage, health care coverage). A partial reversal of the 2017 corporate tax cut is seen as a source of funding for these initiatives. That said, the Democrats' lack of commanding Congressional majorities may constrain the scope of their ambitions.

Overall, we view the outlook for corporate profits as positive given the pandemic's expected end. On its own, that suggests a favorable backdrop for equity markets, but we can't ignore the strong returns in 2020 and the signs of froth in some areas of the market. We certainly

expect some richly valued but highly speculative "story stocks" to fail to deliver relative to high expectations in the coming years. In higher quality situations where we've felt the need to manage valuation risk in recent quarters, we take some comfort in the fact that these companies' profit cycles are de-risked and very strong. Nonetheless, some of the coming year's potential gains may have been pulled forward.

As a final market outlook thought, it's worth noting that falling interest rates have certainly contributed to rising equity valuations in recent years. The recent modest recovery in rates is likely an encouraging economic sign, but if rates meaningfully surprise to the upside, we'd expect valuations to come under pressure. While we view this as possible, we believe trends in information technology continue to serve as important deflationary factors in the global economy.

As we close a remarkably successful year, we're very thankful for the hard work and good judgment of our team members, and for the trust and support of our longstanding clients. We humbly acknowledge it will be impossible to keep up our pace of performance over the past two years, both on an absolute and relative basis. But with confidence in the profit growth potential of our portfolio companies and in the proven success of our investment process, we remain optimistic about the portfolio's long-term prospects.

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Carefully consider the Fund's investment objective, risks and charges and expenses. This and other important information is contained in the Fund's prospectus and summary prospectus, which can be obtained by calling 800.344.1770. Read carefully before investing.

Current and future portfolio holdings are subject to risk. International investments involve special risks, including currency fluctuation, lower liquidity, different accounting methods and economic and political systems, and higher transaction costs. These risks typically are greater in emerging markets. Securities of small- and medium-sized companies tend to have a shorter history of operations, be more volatile and less liquid and may have underperformed securities of large companies during some periods. Growth securities may underperform other asset types during a given period.

MSCI All Country World Index measures the performance of developed and emerging markets. The index(es) are unmanaged; include net reinvested dividends; do not reflect fees or expenses; and are not available for direct investment.

This summary represents the views of the portfolio managers as of 31 Dec 2020. Those views may change, and the Fund disclaims any obligation to advise investors of such changes. For the purpose of determining the Fund's holdings, securities of the same issuer are aggregated to determine the weight in the Fund. The holdings mentioned above comprise the following percentages of the Artisan Global Discovery Fund's total net assets as of 31 Dec 2020: Boston Scientific Corp 3.0%, Atlassian Corp PLC 2.7%, Zynga Inc 2.5%, Vestas Wind Systems A/S 2.5%, Lattice Semiconductor Corp 2.0%, Blackline Inc 1.9%, Lonza Group AG 1.2%, Zoom Video Communications Inc 1.0%, Chegg Inc 0.8%, Bentley Systems Inc 0.8%, Advanced Micro Devices Inc 2.7%, Zscaler Inc 1.1%. Securities named in the Commentary, but not listed here are not held in the Fund as of the date of this report. Portfolio holdings are subject to change without notice and are not intended as recommendations of individual securities. All information in this report, unless otherwise indicated, includes all classes of shares (except performance and expense ratio information) and is as of the date shown in the upper right hand corner. This material does not constitute investment advice.

Attribution is used to evaluate the investment management decisions which affected the portfolio's performance when compared to a benchmark index. Attribution is not exact, but should be considered an approximation of the relative contribution of each of the factors considered.

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Portfolio statistics are obtained from various data sources and intended to provide a general view of the portfolio, or Index, at a point in time. Artisan Partners excludes outliers when calculating portfolio characteristics and may use data from a related security to calculate statistics if information is unavailable for a particular security. Median is the data's midpoint value. Weighted Average is the average of values weighted to the data set's composition. Weighted Harmonic Average is a calculation of weighted average commonly used for rates or ratios. Market Cap is the aggregate value of all of a company's outstanding equity securities. Earnings Growth Rate is the annual rate at which a company's earnings are expected to grow. Price-to-Earnings (P/E) is a valuation ratio of a company's current share price compared to its per-share earnings. Private Market Value is an estimate of the value of a company if divisions were each independent and established their own market stock prices.

Our capital allocation process is designed to build position size according to our conviction. Portfolio holdings develop through three stages: Garden<sup>SM</sup>, Crop<sup>SM</sup> and Harvest<sup>SM</sup>. Garden<sup>SM</sup> investments are situations where we believe we are right, but there is not clear evidence that the profit cycle has taken hold, so positions are small. Crop<sup>SM</sup> investments are holdings where we have gained conviction in the company's profit cycle, so positions are larger. Harvest<sup>SM</sup> investments are holdings that have exceeded our estimate of intrinsic value or holdings where there is a deceleration in the company's profit cycle. Harvest<sup>SM</sup> investments are generally being reduced or sold from the portfolios.

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