Return on Time
One of Artisan's newest managers makes his mark.

UNDISCOVERED MANAGER

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In every issue, Undiscovered Manager profiles a noteworthy strategy that hasn't yet been rated by Morningstar Research Services.

Artisan Partners Asset Management APAM has long earned Morningstar's admiration. The firm hires promising managers, provides a platform that allows them to operate with autonomy, and closes successful funds to preserve the qualities that led to outperformance. As a result, Artisan has earned a Positive Parent rating, one of the pillars that support Morningstar Medalist designations for a number of Artisan funds. Of the 15 open-end strategies Artisan offers, 12 are on Morningstar's coverage list, and all of those have earned Morningstar Analyst Ratings of Bronze, Silver, or Gold.

So, when Artisan launches a new strategy, investors take notice. One of its newest offerings is Artisan Thematic APDTX, which launched in April 2017 with less than $10 million in assets and has quickly grown to more than $300 million as of March.

Artisan Thematic manager Chris Smith joined the firm in 2016, but Smith and Artisan had been on each other's radar for several years. The two sides maintained a running dialogue as Smith built a track record for his thematic strategy. He had spent much of his career at Karsch Capital Management as both analyst and portfolio manager, and he also managed money for a private family office and at Kingdon Capital Management; his record includes both long-only and long/short equity strategies. With the blessing of then-employer Kingdon, Smith eventually made the switch to Artisan.

Smith credits Artisan's patient and thorough culture, which allowed them to get to know him over a three-year period. That gives him the latitude to run a distinctive strategy. The fund, which lands in the large growth Morningstar Category, is designed to be a core equity strategy and is benchmarked against the S&P 500, but it doesn't look much like the index. The portfolio is typically concentrated in roughly 30 stocks, and its sector exposure does not hew to the benchmark.

Smith is supported by a team of six investment professionals, several of whom worked with him before he joined Artisan. The New York-based group has gotten off to a good start: From its April 2017 inception through March, the advisor share class of the fund has returned an annualized 29.1%, compared with 15.9% for its category and 12.4% for its benchmark.

It wasn't returns per se that got the attention of Andrew Krei, head of investment research at Crescent Grove Advisors. The firm, which has offices in Milwaukee, Atlanta, and Lake Forest, Ill., has used Artisan funds for more than a decade. "We appreciate the way they source talent and do due diligence on portfolio managers," Krei says.

Crescent Grove approved the Thematic fund for its investment list late last year. "It was helpful to see how it did in the stressful environment of 2018," Krei says. "We like their ability to mitigate downside volatility—we were encouraged by the empirical data."

Theme Engine

The concentrated portfolio is a result of a process that focuses on exploiting particular themes that Smith and his team believe will drive above-average growth. As of December, the strategy focused on six themes, including data monetization (31% of assets), life sciences (20%), software (14%), and industrial gases (13%).

"When we talk about themes on our end," Smith says, "we're really looking for inflection points in multiyear trends that are often misunderstood by the markets." Ideally, these inflection points allow the team to take a strong view on company and industry fundamentals. The team works to understand what is driving those inflection points, whether it's supply and demand dynamics, societal or behavioral changes, market conditions, technologies, or laws and regulations. These inflection points are usually fraught with rapid change and above-average uncertainty, and Smith notes that "the market typically has a tough time modeling rate of change."

Once a theme is identified, the work turns to pinpointing the companies most likely to benefit from it. The analysts build models for research and development budgets across industries and go product by product to build out total addressable market and compound annual growth rates to forecast market share. For those companies that best express each theme, the analysts build rigorous company-specific models to identify companies with earnings power that is materially different from consensus and where the return on investing capital is accelerating over the next three to five years. If a company model shows a revenue growth rate accelerating toward 12% by 2021, and consensus forecasts are only 6%, there is potential for alpha generation.

Plotting each company's earnings differentiation and valuation on an X/Y axis, the team focuses on those that land in the top-right quadrant: stocks with the highest earnings differentiation and most-attractive valuation. If the team has a high-conviction idea but the price is unattractive, it will wait for a better entry point.

A recent emblematic pick is VMware VMW, which Smith bought in the fourth quarter of 2018 and was a 6.1% stake at year-end. The thesis is that the cloud computing market is settling into a hybrid environment, with businesses using both public and private solutions. Public clouds can enable extreme growth, but they also introduce issues around data privacy and data residency so businesses are keeping some operations on-premises. This increases the complexity of IT infrastructure, which requires robust cloud management services.

"VMware is building out an expertise in that area with a variety of new products," Smith says, noting that the company is well situated but would not have been as well positioned if the market had settled on public solutions. A few years ago, it was impossible to predict this hybrid state; the rapidly changing environment is the kind the fund's theme-driven strategy aims to benefit from.

One of the fund's newer themes is life sciences, which was added in early 2018 and by the end of the year had grown to nearly 20% of assets. The theme is driven by the team's belief that secular tailwinds are changing the healthcare industry, specifically in areas such as biopharmaceuticals, precision medicine, and diagnostics. Companies in this space often have pricing power and low cyclicality, and the accelerating pace of innovation creates opportunities for stock selection. One example is Agilent Technologies A, a 3.3% stake at the end of 2018. Agilent has an evolving product mix that the team believes will allow it to capitalize on industry changes, and its revenue, operating margin, and free cash flow have been growing steadily.

Return on Time

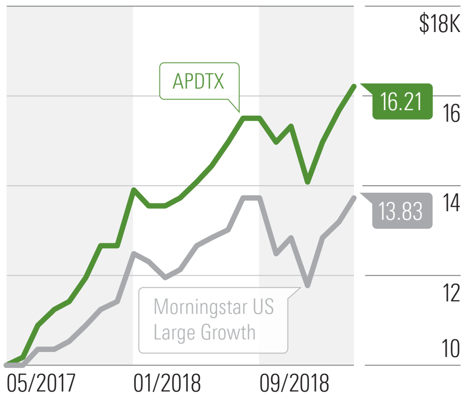
The team makes extensive use of data-driven analysis to optimize portfolio construction. Stocks that they most want to own—those in the top-right quadrant of that scatter plot chart—are run through a program that plots out a risk-reward curve, with each point along the curve representing a different take on portfolio composition and position sizing.

Using variables like expected and historical volatility, expected return, stress tests, and correlations among holdings, the program allows Smith to build a portfolio that hews relatively close to a preferred level of volatility. The goal is to take subjectivity out of portfolio construction and build

Chris Smith, managing director of Artisan Partners and portfolio manager for the Artisan Thematic strategy.

Artisan Thematic APDTX

Growth of $10K



Morningstar Category	Large Growth
Expenses (%)	1.27
Fee Level	High

Source: Morningstar Direct. Data as of 03/31/2019.

a portfolio that should offer the best risk-adjusted return.

Optimization guides decisions to add or subtract picks from the portfolio. For example, if the team wants to add a stock to the life sciences theme, the program will suggest removing another name within that theme, as the portfolio has already been properly calibrated for that particular risk.

Smith believes this approach helps the team choose wisely. "Do we really need another name that's of similar risk profile, or are our current names already the best expression of that theme? Do you want to work on a new, unique idea that would be additive to the portfolio's risk-adjusted return?" he says.

Every model, piece of data, and bit of research is saved every night, creating a database of the team's decisions that allows them to analyze what they do well or poorly, such as setting target prices, position sizing, industry analysis, and so on. The goal, Smith says, is to "optimize our return on time." He hopes that this data will make both the team and the process stronger over time.

Risk management is incorporated at each step in the investment process. The team runs various portfolios (both current and potential) through scenarios, such as recessions and interest-rate hikes, to understand how the fund might perform in different environments and to ferret out any unintended bets. They also evaluate bull-market scenarios to ensure the fund is properly exposed to market upside. These stress tests play a significant role in portfolio construction.

The strategy also makes periodic use of options. These may be used both offensively, to maximize alpha potential in particular trades, and defensively, to minimize stock-specific drawdown risk and general market risk. The options are handled by Matthew Plotkin, the team's risk manager and head trader; Plotkin spent 15 years at Karsch Capital Management, much of that time working alongside Smith in a similar role. The fund's turnover has been elevated since launch—355% in 2018—and that is partly a reflection of the use of options, as well as trades to keep the fund in line with its target volatility.

Setting Expectations

The goal of the fund is to generate the best risk-adjusted returns possible while offering investors a core equity option. While the fund lands in the large-growth category, it does not have an explicit growth bent and could migrate into the large-blend or large-value categories depending on the themes and the stocks the team picks to express those themes.

The portfolio construction process emphasizes volatility and correlation rather than absolute return potential. The team has built a portfolio that, while it is composed of accelerating stocks, has a standard deviation near that of the S&P 500. From the fund's April 2017 inception through January, its standard deviation effectively matched that of the index, even as it outperformed.

The fund won't receive a Morningstar Rating until it accumulates three years of history at the end of April 2020. However, since inception, the fund's Sortino ratio (a risk-adjusted measure that, like the Morningstar Rating, focuses on downside risk) is triple that of the S&P 500. To be sure, it is not uncommon for new funds to launch with record returns before falling back to earth. But the results thus far are emblematic of Smith's intentions for the fund.

"They may not always set the world on fire like they have over the last couple of years, but we would certainly expect them to be one of our stronger performers in a down market," Krei says. "The fund has a high tracking error, is pretty idiosyncratic, so it is a nice complement to other active funds."

That said, investors should be aware that the fund is highly concentrated (its top five holdings accounted for 31% of assets at the end of 2018) and that it can make sizable sector bets. This means that, especially over shorter periods, the fund may be out of sync with peers. This worked in the fund's favor in the volatile fourth quarter of 2018. It lost only 8.7%, while the S&P 500 dropped 13.5% and the average large-growth fund fell 15.4%. But in January, markets whipsawed, and the fund's 5.7% return lagged.

Another caveat: Expenses are high, and costs are a key predictor of future success. The advisor share class charges 1.27%, while the investor share class charges 1.52%. In both cases, fees are well above average compared with peers in the same distribution channels.

The fund remains an intriguing option, however. Artisan rarely launches new funds and tends to be thoughtful about those they do launch—as evidenced by the multiyear conversation they had with Smith before bringing him into the fold. The fund is notable for its rigorous combination of fundamental analysis and data-driven portfolio construction.

"We appreciate that it is not discretionary or running on gut instincts," Krei says. "The process is systematic and repeatable, and differentiated."

As Smith puts it, "We don't have subjective debates. We don't like or dislike stocks. There are no stock pitches. We just do the work." M

Brian Moriarty is a senior manager research analyst with Morningstar Research Services. He holds shares of Artisan Thematic.

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Clarifications: Artisan Thematic Fund (advisor share) fell 8.8% in Q4 2018. The Fund's 2018 turnover figure excludes purchased options expiring within one year of purchase date; the figure would be higher if included. The Fund's Investor Class expenses quoted reflect a contractual expense limitation agreement in effect through 31 Jan 2020.

Note: Artisan Thematic Fund is available through multiple share classes offering varying investment minimums, fees and expenses. The Fund's Advisor Class (APDTX) described in the article contains a minimum of $250,000, while the Fund's Investor Class (ARTTX) contains a minimum of $1000. Minimums may be waived for certain financial intermediaries. See Artisan Partners Funds prospectus for further details.

Investment Results as of 31 Mar 2019 (%) **Artisan Thematic Fund**	QTD	YTD	1 YR	ITD	Expense Ratios (Gross) Prospectus 30 Sep 2018
Investor Class: ARTTX	13.23	13.23	17.95	29.07	1.71
Advisor Class: APDTX	13.40	13.40	18.03	29.11	1.27
S&P 500 Index	13.65	13.65	9.50	11.80	—

Source: Artisan Partners/S&P. Returns less than one year are not annualized. Class inception: Investor (24 Apr 2017); Advisor (31 Jul 2018). For the period prior to inception, Advisor Class performance is the Investor Class's return for that period ("Linked Performance"). Linked Performance has not been restated to reflect expenses of the Advisor Class and the share class's returns during that period would be different if such expenses were reflected.

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. Performance may reflect agreements to limit a Fund's expenses, which would reduce performance if not in effect. The Thematic Fund's investments in initial public offerings (IPOs) made a material contribution to performance. IPO investments may contribute significantly to a small portfolio's return, an effect that will generally decrease as assets grow. IPO investments may be unavailable in the future. The Fund's returns may vary greatly over shorter periods due to the limited operating period since inception. Current performance may be lower or higher than that shown. Call 800.399.1770 for current to most recent month-end performance.

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 visiting www.artisanfunds.com. Read carefully before investing.

A non-diversified portfolio may invest a larger portion of assets in securities of a smaller number of issuers and performance of a single issuer may affect overall portfolio performance greater than in a diversified portfolio. The portfolio's use of derivative instruments may create additional leverage and involve risks different from, or greater than, the risks associated with investing in more traditional investments. High portfolio turnover may adversely affect returns due to increased transaction costs and creation of additional tax consequences. 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. 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.

The holdings mentioned above comprise the following percentages of the portfolio net assets as of 31 Mar 2019: VMware Inc 2.8%, Agilent Technologies Inc 2.0%. Securities named in the commentary, but not listed here are not held in the Fund as of the date of this report. For the purpose of determining the Fund's holdings, exposures are delta-adjusted at the issuer level and may include multiple securities of the same issuer. Portfolio holdings are subject to change without notice and are not intended as recommendations of individual securities.

The Morningstar Analyst Rating is not a credit or risk rating. It is a subjective evaluation performed by the mutual fund analysts of Morningstar, Inc. Morningstar evaluates funds based on five key pillars, which are process, performance, people, parent, and price. Morningstar's analysts use this five pillar evaluation to identify funds they believe are more likely to outperform over the long term on a risk-adjusted basis. Analysts consider quantitative and qualitative factors in their research, and the weighting of each pillar may vary. The Analyst Rating ultimately reflects the analyst's overall assessment and is overseen by Morningstar's Analyst Rating Committee. The approach serves not as a formula but as a framework to ensure consistency across Morningstar's global coverage universe.

The Analyst Rating scale ranges from Gold to Negative, with Gold being the highest rating and Negative being the lowest rating. A fund with a "Gold" rating distinguishes itself across the five pillars and has garnered the analysts' highest level of conviction. A fund with a 'Silver' rating has notable advantages across several, but perhaps not all, of the five pillars-strengths that give the analysts a high level of conviction. A "Bronze"-rated fund has advantages that outweigh the disadvantages across the five pillars, with sufficient level of analyst conviction to warrant a positive rating. A fund with a 'Neutral' rating isn't seriously flawed across the five pillars, nor does it distinguish itself very positively. A "Negative" rated fund is flawed in at least one if not more pillars and is considered an inferior offering to its peers. Analyst Ratings are reevaluated at least every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go https://www.morningstar.com/content/dam/marketing/shared/research/methodology/778136_Morningstar_Analyst_Rating_for_Funds_Methodology.pdf.

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Definitions: **Alpha** is a quantitative measure of the volatility of the portfolio relative to a designated index. A positive alpha of 1.0 means the fund has outperformed its designated index by 1%. Correspondingly, a similar negative alpha would indicate an underperformance of 1%. **Sortino ratio** is a measure of volatility that divides a portfolio's return over a risk-free rate by its downside deviation. **S&P 500® Index** measures the performance of 500 US companies focused on the large-cap sector of the market. The index(es) are unmanaged; include net reinvested dividends; do not reflect fees or expenses; and are not available for direct investment. The S&P 500® ("Index") is a product of S&P Dow Jones Indices LLC ("S&P DJI") and/or its affiliates and has been licensed for use. Copyright © 2019 S&P Dow Jones Indices LLC, a division of S&P Global, Inc. All rights reserved. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. S&P® is a registered trademark of S&P Global and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). None of S&P DJI, Dow Jones, their affiliates or third party licensors makes any representation or warranty, express or implied, as to the ability of any index to accurately represent the asset class or market sector that it purports to represent and none shall have any liability for any errors, omissions, or interruptions of any index or the data included therein

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