Madison INVESTMENTS®

Madison Mid Cap Fund Investment Strategy Letter

Review - 4th Quarter 2018

Rich Eisinger
Portfolio Manager
Industry since 1994

Haruki Toyama
Portfolio Manager
Industry since 1994

For the fourth quarter of 2018, the Madison Mid Cap Fund (Class Y) returned -10.69%, net of fees, versus a-15.37% return for the Russell Midcap® Index. For the full year 2018, the fund returned -1.91%, net of fees, versus -9.06% for the Index. Our three and five-year returns exceed the Index as well. Please see the Fund fact sheet beginning on page 7 for returns of all classes.

The story of the fourth quarter and 2018 was the decline in the U.S. stock market. Both the broader market, as measured by the S&P 500® Index, and our specific benchmark, the Russell Midcap Index, recorded their worst calendar year result since 2008. In the case of the S&P 500, it was its first decline after nine consecutive years of increases. At the market trough on Christmas Eve, the S&P 500 was down 19% from its peak and the Russell Midcap was down 21%. The market has rebounded moderately since then, but remains significantly below the peak.

As has been our historical tendency , we held up better than the market in the downdraft, with almost three-quarters of our portfolio investments declining less than the Russell Midcap Index for the three months ending December when virtually all of the market drop occurred. A few holdings actually finished the quarter in positive territory. Our position sizing has been favorable, with our top ten holdings all outperforming the Index. This top-heavy success doesn't happen in all downturns, but neither is it a totally random outcome. Our investment criteria already favors characteristics that investors latch onto in times of trouble, and we make an effort to emphasize those characteristics even more when considering our largest weightings.

Our recent performance is especially noteworthy when considering that we have virtually no investments in the conventional safe havens of the market such as utilities, staples and income-oriented real estate. As our long-time investors know, we are bottom-up stock-pickers and aim to invest in a concentrated portfolio of thirty-ish companies that we hope to own for many years. We don't believe we have any capability to predict quarterly or annual movements in the overall stock market, and so we make no attempt to shift our overall portfolio make-up with any such forecast in mind.

Our outperformance in 2018 was of a somewhat different character than in the last sluggish year for the stock market, 2015. Back then, overall U.S. corporate profits declined while our portfolio companies managed to grow profits at a mid-to-high single-digit rate. Thus, the source of our outperformance could reasonably be

Past performance does not predict future results. Please refer to the final two pages of this piece which contain current performance information for the fund, the risks of investing in the fund and a complete list of the fund's individual portfolio holdings as of quarter end. Individual portfolio holdings are identified to illustrate our approach to investing the fund's portfolio and are not intended to represent a recommendation to buy or sell any such security.

Performance data shown represents past performance. Investment returns and principal value will fluctuate, so that fund shares, when redeemed, may be worth more or less than the original cost. Past performance does not guarantee future results and current performance may be lower or higher than the performance data shown. Visit madisonfunds.com or call 800.877.6089 to obtain performance data current to the most recent month-end.

attributed to the underlying profit trend of our holdings. In contrast, in 2018, our portfolio companies' profit growth is likely to have slightly lagged the 22% growth expected for corporate America. Thus, our fund outperformance this past year can be sensibly attributed to valuation resiliency rather than current profit growth.

That we outperformed in these two different ways is a function of our investing style that balances valuation and corporate performance. We look for companies that meet our stringent criteria for corporate excellence, but have neither flash-in-the-pan growth rates nor unsustainably high valuations. Medio tutissimus ibis -- the middle course is the safest -- said Apollo to his son, advising him to ride his chariot neither too high nor too low, neither too far right nor too far left. We hope to keep up with the market in solid years and do much better in down years, understanding that in speculative markets we will probably fall behind. This lets the magic of compounding work best.

If It's in the News

While we have always received questions from investors about how recent news will impact our portfolio, the pace of such questions has, in recent years, hit a fever pitch. Our generic answer is quite simple: if it's in the news, it's in the stock. This, of course, is an industry aphorism that exaggerates for the sake of insight. But 2018, and the past several years, provide many examples that prove the point.

One year ago, the threat of increasing tariffs and rising protectionism around the globe was all over the news. We owned shares in Expeditors International, a freight forwarder whose core business was international trade with an especially large position in the China-U.S. routes to boot. Naturally, our team discussed our investment intensely, but after quite a bit of investigation, and considering many of the factors involved, such as Expeditors' wonderful track record, its prospects for market share gains and its share price valuation, we decided to hold on to our position. Despite tariff implementations moving from possibility to reality throughout 2018, Expeditors stock ended up for the year, and was one of our best-performing investments. If it's in the news, it's in the stock.

Two years ago, Amazon hysteria was in full bloom and the online juggernaut's ascendancy spelled the death knell for all traditional retailers, as was obvious to any reader of the news. At the time, we owned several retailers and they were the source of many questions from our investors. Yet, having already taken into consideration any risk from online competition, we remained confident in our investments. Not only do we still own some of those retail investments, such as Ross Stores, but we have since bought a few more, including O'Reilly Automotive. As a group, they have added enormously to our portfolio returns. If it's in the news, it's in the stock.

Three years ago, we purchased stock in Liberty Broadband, whose primary asset is shares of Charter Communications, the second largest domestic cable system operator. News headlines were rife with doomsday scenarios about cord-cutting and the loss of cable subscribers to over-the-top streaming services. Our research indicated that Charter had various initiatives and traits that would allow it to succeed financially even in near-worst case outcomes, and that Liberty Broadband stock was significantly undervalued. Since our purchase, it's handily beaten the indices. It was in the news, so it was probably in the stock.

To elaborate on this point one step further, share price performance is rarely the result of a single factor -- such as the industry that the company belongs to -- however important it may seem or actually be. Our entire philosophy

and research process revolves around the qualitative weaving together of countless attributes to reach a conclusion that facile characterizations would miss. Take our single oldest investment in our portfolio, Markel Corporation, a commercial property and casualty insurer. We first bought shares in 2000, and they have handily beaten our benchmark index since then. Property and casualty insurance is a notoriously cyclical industry, with profits heavily reliant on the price environment. We timed our investment well, with industry pricing up sharply from 2000 to 2004. Yet, after that peak, property and casualty prices began a long and tortuous decline such that today's prices are now below where they were in 2000 on an absolute basis for large clients, and on an inflation-adjusted basis for smaller clients. If someone had handed us a crystal ball in 2004 that revealed to us that industry prices would endure a 15 year decline, we just may have sold our position in Markel. Luckily, we remained in the dark and held on to our shares. They have outperformed our benchmark index since then due to many factors, not least of which is the capital allocation prowess of its management team. So even if we had near clairvoyance on future news, it was more than in the stock!

Portfolio Review

Our top five contributors for 2018 were O'Reilly Automotive, Copart, TJX Companies, CDW Corporation, and Zoetis. We sold our entire Zoetis stake earlier in the year on valuation. Both O'Reilly's and TJX's sales trends have fully recovered from a weak 2017. Their per-share profits are on track to rise 40% and 23%, respectively, in 2018, and their share prices have followed. Earnings for both were boosted by tax reform.

Despite some weakness in its shares in the latter half of the year, Copart's corporate performance remains excellent. Salvage car volumes are normalizing somewhat after some exceptional growth, and spending on expansion initiatives is temporarily keeping a lid on margins. The 30% earnings growth of the last two years won't be sustained, but double-digit growth should be attainable. We cut back on our Copart stake in the fall on valuation but it remains a core holding for us.

CDW has been such an unassuming, almost boring business since our purchase in 2014 that we've scarcely celebrated its successes on these pages. But you shouldn't take that to mean that they are underappreciated. The investment has been a home run for us. CDW is a leading purveyor of IT hardware and software to a wide variety of institutional customers, including federal and local governments, education and healthcare enterprises, and small and mid-sized companies. It's migrated successfully from a pure "catalog" re-seller of mostly hardware to more of a consultative provider of full solutions including software. This has been a crucial evolution, since the rapidly changing and increasingly complex IT landscape is difficult for small companies and nonprofit entities to navigate on their own. So the kinds of disruptive changes that investors constantly fear will disintermediate CDW, such as mobile or cloud, have instead served to reinforce its value proposition as overwhelmed and overworked IT departments turn to CDW for advice. Cloud solutions, for example, now account for a significant portion of gross profits, up from virtually nothing just a decade ago.

CDW's competitive advantage is deceptively simple. With $16 billion in revenues, it has scale in that middle portion of the market, below the high-end IT consultants and resellers but above the pure logistics companies that just sell products that gives it a unique combination of service and price competitiveness that no one can match. CDW's success, if we had to distill

it to one thing, is that it hires and trains its salespeople exceptionally well. This is critical in an industry where, as Peter Drucker would say, culture eats strategy for breakfast. We'd be hard-pressed to name another company with a salesforce as well-trained and effective as CDW's.

Since our original purchase, its sales growth has hovered within a percentage point of 8% each year, its operating margins have steadily increased by tenths of a percentage point a year and earnings per share have more than doubled. Despite its success, CDW's share of the addressable market is tiny, with an IT market that is in the hundreds of billions no matter how defined. So we foresee a very long runway for market share gains. Multiple expansion has only been a small part of our investment return, with the shares still selling for a reasonable low-to-mid teens P/E multiple. However, we don't want to lose sight of the fact that the corporate IT market can be quite fickle and prone to cyclical downturns, and we recently trimmed our stake as it grew to an oversized position. CDW remains a core holding.

The five largest detractors to the portfolio in 2018 were Axalta, Mohawk Industries, Liberty Broadband, Crown Holdings and Alliance Data Systems. Just when coatings maker Axalta was getting traction on raw material cost hike pass-throughs, regaining its bearings from failed merger talks and recovering from some customer inventory corrections, investors have become nervous about its exposure to the global automotive and industrial markets. This investment has certainly not been like watching paint dry. We don't have a particularly strong view on how their automotive or industrial end markets may do in 2019, but close to half of Axalta's profits come from selling paint to auto repair shops, where demand is less economically sensitive. Liberty Broadband stock has been weak as so-so subscriber trends have re-instilled fears about cord-cutting. Despite this, free cash flow is set to jump markedly in 2019 and 2020 as the capital expenditures to upgrade the acquired Time Warner system are now reaching an end.

Mohawk and Alliance Data are new investments from the third quarter of 2018. We bought them after large share price declines and unfortunately we failed to catch the bottom. We remain optimistic about our ownership but have kept their position sizes smaller for the time being as both are in highly cyclical industries .

Buys and Sells

For the year, we purchased seven new stocks and sold six. Activity picked up as the fourth quarter progressed and we made two new investments, added to several existing investments and eliminated one. Late in the year we sold our small stake in oil and gas service provider Oceaneering International. Oceaneering derives a good deal of its revenue from deep water exploration and production activity. Recent weakness in oil prices has further delayed a rebound in industry activity and made it difficult to forecast an improvement in Oceaneering's profitability.

We purchased two new securities in the fourth quarter -- Floor & Decor Holdings and TE Connectivity.

Floor & Decor is a retailer of hard surface flooring products such as ceramic tile, stone, wood, laminate and vinyl, primarily into the residential renovation market. It's a dominant category killer but a relatively young one, having started with its first store in Atlanta just 18 years ago and now operating 95 stores across the country. Hard flooring has been taking share from carpet for many years and we expect this trend to continue.

Category killers have been somewhat out of fashion for a while in the retail and restaurant industry, as the phenomenal success of chains such as Costco and Chipotle has led to a shift towards formats that emphasize a more curated merchandise assortment with fewer SKUs. The advent of online retailing, which allows for a more cost-efficient offering of the long tail of products, has contributed to this trend in brick-and-mortar retailing as well. Flooring, however, is not a category where this works. Consumers want choice when it comes to home furnishings and interior design. Home Depot and Lowe's are excellent competitors but they can only devote, at most, 5,000 square feet per store to hard flooring. Floor & Decor's superstore format of 75,000 square feet is ideal for a shopping category where consumers and professional installers demand a wide choice of products, instant inventory availability and generous visual presentations.

"Retail is detail" as they say, and management matters more than in some other industries. On that front, a chief draw of Floor & Decor as an investment is its deep management team led by CEO Tom Taylor, whose past experience includes a successful decades-long career with Home Depot. We look forward to investing alongside them.

TE Connectivity is a leading global producer of connectors and other small electronic components for a near-infinite variety of industrial and consumer product applications. Demand for its products has grown for years given the increased use of electronics in just about everything, and we expect this trend to continue into the foreseeable future. TE has an especially strong franchise in the automotive markets, with an average of about $60 of content in every car produced around the world. Fears about the auto cycle have punished the stock to attractive levels, but we think the content story is intact across all end markets and should provide above-average growth for decades to come. We also recently added to our position in Amphenol, a competitor to TE that we've owned for many years. The next time you are in a car, you should note that there are about $80 worth of components in that car engineered and manufactured by two of your investment holdings.

Thank You

By one measure, passive U.S. stock funds now account for 48% of all U.S. stock fund assets and are on track to be a majority sometime in 2019. We don't necessarily disagree with Warren Buffett – for the investor who does not have the time or expertise to research fund managers, passive index funds can be an excellent choice. However, we hope that the very fact that you are reading this suggests that you have some inclination to do better. Doing better can mean two things – beating the returns of the index, or providing a lower risk profile than the index. We aim to do both, which is something that conventional and academic wisdom teaches is not possible.

Thank you for your confidence in us. We will continue to do our best to earn it.

Respectfully,

Rich Eisinger *Haruki Toyama*

The Russell Midcap® Index is a mid-cap market index which measures the performance of the mid-cap segment of the U.S. equity universe. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

The S&P 500® Index is a large-cap market index which measures the performance of a representative sample of 500 leading companies in leading industries in the U.S.

Although the information in this report has been obtained from sources that the firm believes to be reliable, we do not guarantee its accuracy, and any such information may be incomplete or condensed. All opinions included in the report constitute the authors' judgment as of the date of this report and are subject to change without notice. This report is for informational purposes only and is not intended as an offer or solicitation with respect to the purchase or sale of any security.

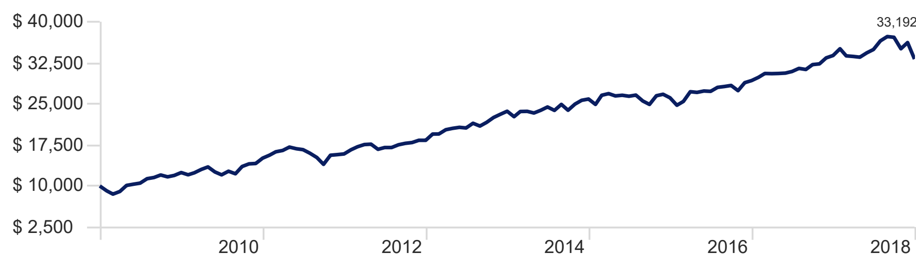
Madison Asset Management, LLC does not provide investment advice directly to shareholders of the Madison Funds. Opinions stated are informational only and should not be taken as investment recommendation or advice of any kind whatsoever (whether impartial or otherwise).

Madison Funds are distributed by MFD Distributor, LLC, memeber FINRA. ©Madison Asset Management, LLC. January 11, 2019.

Madison Mid Cap Fund

Growth of $10,000[1]
Class Y Shares, Trailing 10-yrs

The Value of Long-Term Investing



Average Annual Total Returns[2] (%)

		Three Months	YTD	1 Yr	3 Yr	5 Yr	10 yr	Since Inception
Class Y		-10.69	-1.91	-1.91	8.32	7.01	12.74	9.84
Class R6		-10.56	-1.67	-1.67	8.62	7.33	–	10.49
Class A	without sales charge	-10.74	-2.34	-2.34	7.90	6.64	–	8.99
	with sales charge	-15.86	-7.98	-7.98	5.78	5.38	–	7.87
Class B	without sales charge	-10.87	-2.96	-2.96	7.15	5.87	–	8.19
	with sales charge	-14.51	-6.93	-6.93	6.12	5.61	–	8.08
Russell Midcap® Index		-15.37	-9.06	-9.06	7.04	6.26	14.03	–

Calendar Year Returns[2] (%)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Class Y	24.51	21.15	5.10	15.69	28.96	9.42	0.87	12.06	15.63	-1.91
Russell Midcap® Index	40.48	25.48	-1.55	17.28	34.76	13.22	-2.44	13.80	18.52	-9.06

Risk Metrics (%)

		3 Yr	5 Yr	10 yr
Class Y	Upside Capture	93.19	98.06	87.37
	Downside Capture	79.54	91.50	84.24
	Beta	0.84	0.89	0.84

Characteristics

Total Number of holdings	31
Active Share	95.1%
% Assets in Top 10 stocks	43.7%
Portfolio Turnover	27%
Wtd. Average Maket Cap	$16.4 B

Experienced Management

Rich Eisinger
Portfolio Manager
Industry since 1994

Haruki Toyama
Portfolio Manager
Industry since 1994

Fund Features

- Fund seeks long-term capital appreciation
- High conviction; 25-40 holdings
- Holdings have elements of growth and value companies
- Focus on risk management

Class	Ticker	Inception Date	Exp. Ratio[3]
A	MERAX	9/23/13	1.40%
B	MERBX	4/19/13	2.15%
Y	GTSGX	7/21/83	0.98%
R6	MMCRX	2/29/12	0.77%

Distribution Frequency

Annual

Total Net Assets

$401.3 Million

1 Growth of $10,000 is calculated at NAV and assumes all dividends and capital gain distributions were reinvested. It does not take into account sales charges (if applicable) or the effect of taxes.

2 Average annual total returns and calendar year returns assume all distributions are reinvested and reflect applicable fees and expenses. Class A share returns without sales charge would be lower if sales charge were included. Class A share returns with sales charge reflect the deduction of the maximum applicable sales charge of 5.75%. **Class B shares** have no up-front sales charge. If redeemed within six years, however, B shares are subject to a maximum contingent deferred sales charge of 4.5%. Index returns reflect broad measures of market performance compared the fund and reflect no deduction for sales charges, account fees, expenses or taxes. You cannot invest directly in an index. Class B shares may not be purchased or acquired, except for exchange from Class B shares of another Madison fund, please see the most recent prospectus for details.

3 Expense ratios are based on the fund's most recent prospectus.

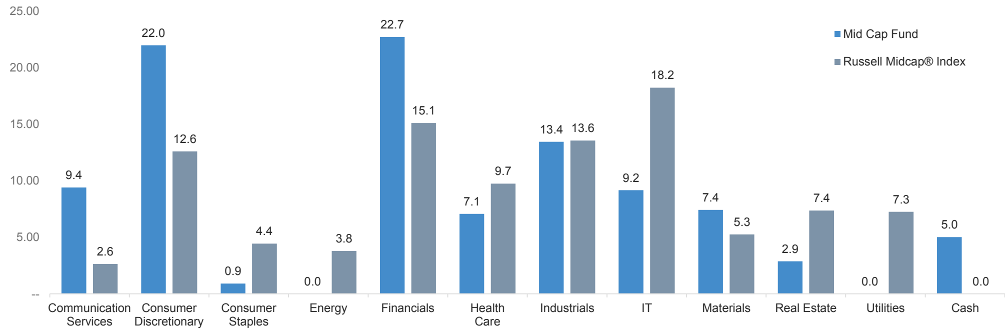
Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

Performance data shown represents past performance. Investment returns and principal value will fluctuate, so that fund shares, when redeemed, may be worth more or less than the original cost. Past performance does not guarantee future results and current performance may be lower or higher than the performance data shown. Visit madisonfunds.com or call 800.877.6089 to obtain performance data current to the most recent month-end.

Shareholder Services
Madison Funds
P.O. Box 219083
Kansas City, MO 64121-9083
800.877.6089

Consultant and
Advisor Services
550 Science Drive
Madison, WI 53711
888.971.7135

Sector Allocation (%)



Sector allocation is rounded to the nearest 0.1%.

Complete Stock Holdings (%)

Holding	%
ARCH CAPITAL GROUP LTD	5.3
DOLLAR TREE INC	5.0
MARKEL CORP	4.7
LIBERTY BROADBAND C	4.5
O REILLY AUTOMOTIVE INC	4.4
BROWN + BROWN INC	4.1
CARMAX INC	4.1
EXPEDITORS INTL WASH INC	4.0
HENRY SCHEIN INC	3.9
BROOKFIELD ASSET MANAGE CL A	3.7
IHS MARKIT LTD	3.5
AXALTA COATING SYSTEMS LTD	3.5
CDW CORP/DE	3.2
COPART INC	3.2
LABORATORY CRP OF AMER HLDGS	3.1
OMNICOM GROUP	3.1
CROWN CASTLE INTL CORP	2.9
AMPHENOL CORP CL A	2.8
FASTENAL CO	2.7
WR BERKLEY CORP	2.6
MOHAWK INDUSTRIES INC	2.6
GLACIER BANCORP INC	2.3
ROSS STORES INC	2.1
CROWN HOLDINGS INC	2.1
FLOOR + DECOR HOLDINGS INC A	2.0
NEWMARKET CORP	1.8
TJX COMPANIES INC	1.8
LIBERTY GLOBAL PLC C	1.8
TE CONNECTIVITY LTD	1.7
ALLIANCE DATA SYSTEMS CORP	1.4
BROWN FORMAN CORP CLASS B	0.9

Madison Asset Management, LLC does not provide investment advice directly to shareholders of the Madison Funds. Materials on this document are informational only and should not be taken as investment recommendation or advice of any kind whatsoever (whether impartial or otherwise).

Downside Capture Ratio: a fund's performance in down markets relative to its benchmark. The security's downside capture return is divided it by the benchmark's downside capture return over the time period. **Upside Capture Ratio:** a fund's performance in up markets relative to its benchmark. The security's upside capture return is divided by the benchmark's upside capture return over the time period. **Active Share:** the percentage of a portfolio that differs from its benchmark index. Active Share can range from 0% for an index fund that perfectly mirrors its benchmark to 100% for a portfolio with no overlap with an index. **Portfolio Turnover:** a measure of the trading activity in an investment portfolio—how often securities are bought and sold by a portfolio. It is calculated at the fund level and represents the entire fiscal year ending 10/31/2018. **Avg. Market Cap:** the size of the companies in which the fund invests. Market capitalization is calculated by number of a company's shares outstanding times its price per share. **Beta:** a measure of the fund's sensitivity to market movements. A portfolio with a beta greater than 1 is more volatile than the market, and a portfolio with a beta less than 1 is less volatile than the market.

An investment in the fund is subject to risk and there can be no assurance the fund will achieve its investment objective. The risks associated with an investment in the fund can increase during times of significant market volatility. The principal risks of investing in the fund include: equity risk, mid cap risk, growth and value investing risk, ETF risk, capital gain realization risks to taxpaying shareholders, and foreign security and emerging market risk. More detailed information regarding these risks can be found in the fund's prospectus.

Investing in small, mid-size or emerging growth companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquity.

For more complete information about Madison Funds®, including charges and expenses, obtain a prospectus from your financial adviser, by calling 800.877.6089 or by visiting madisonfunds.com and clicking on prospectus and reports to view or download a copy. Before investing in the funds, consider the investment objectives, risks, charges and expenses. he prospectus contains this and other information about funds and should be read carefully before investing.

Madison Funds are distributed by MFD Distributor, LLC, member FINRA and may be purchased directly from the fund or through your investment professional. Portfolio data is as of the date of this piece unless otherwise noted and holdings are subject to change.

Not FDIC Insured | No Financial Institution Guarantee | May Lose Value