Madison INVESTMENTS®

Madison Investors Fund Investment Strategy Letter

Q4 2018

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After nearly ten years without a 20% correction, the U.S. stock market relented in the fourth quarter of 2018. From a peak on September 20th to a low on December 24th, the S&P 500® Index declined just shy of 20%. For the quarter ended December 31st, the S&P 500 finished with a total return of -13.52%. Consistent with its historical tendency to perform well during downturns, the Madison Investors Fund (Class Y) returned -7.64%, capturing only about 57% of the Index's negative return. For the year, the Investors Fund (Class Y) returned -0.20% compared to -4.39% for the S&P 500. This was the fund's third consecutive year outperforming its benchmark. Please see the Fund's Fact Sheet beginning on page 6 for returns of other share classes.

While the swiftness and magnitude of the quarter's stock market decline was shocking to the senses, we weren't entirely surprised. Here are some of the big picture factors related to financial markets we've been keeping in mind:

- High asset valuations. For stock market valuation, we've always appreciated the Shiller cyclically adjusted PE ratio for its consistency and for the longevity of its data set. As of September, the PE read 32.6x compared to what we calculate as the long-term average of 19x since 1950. The last reading in early December was 29x. Clearly valuations have been elevated.
- Peaking economic growth. The consensus among economists is that U.S. fiscal stimulus gave a temporary bump to Gross Domestic Product (GDP) in 2018 and that growth in 2019 is likely to be slower. The IMF's World Economic Outlook from October 2018 projected advanced economies will slow to 2.1% real growth in 2019 from 2.4% in 2018; for the U.S., it projected 2.5% growth in 2019, down from of 2.9% in 2018. The U.S. Federal Reserve's own estimate of longer-run U.S. GDP growth is 1.9%. It seems reasonable for investors to update their earnings estimates for slower economic growth globally.
- High levels of global debt. A Jan. 2, 2019 Wall Street Journal article described the world's debt burden as totaling $250 trillion, up three times from the level of 20 years ago, and roughly triple global GDP. Nearly all developed nations, with the exception of Germany, have increased their debt burdens relative to their GDP. In our view, debt levels this high create more systemic fragility and an increasing call on cash flows to meet steadily rising interest payments.
- Volatile leadership and protectionism. Two of the world's major economic super powers, China and the U.S., are embroiled in a trade dispute that has played out publicly in both print and social media. Earlier in 2018, U.S. economic and strategic allies also faced

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.

unanticipated tariffs on their U.S. exports and, in response, assessed counter tariffs on their U.S. imports. In Europe, Brexit is in limbo ahead of a March 29, 2019 deadline. The uncertainty created by all of these situations is a clear negative for business confidence and has no doubt slowed business investment.

- Slowing population growth. In December, the U.S. Census Bureau reported that U.S. population growth slowed to 0.6% for the year ended July 1, 2018. This is the slowest growth in our lifetimes and has negative implications for future GDP growth absent accelerating productivity(since an economy's GDP growth is simply population growth plus changes in output per person).
- The withdrawal of central bank stimulus. Not only did the U.S. Federal Reserve raise short-term interest rates four times in 2018, it also continued lowering the assets it held on its balance sheet, effectively a two-pronged withdrawal of monetary stimulus.

All of these factors existed throughout 2018 and continue to exist presently. When considering the economic factors combined with the high U.S. stock market valuation, one might readily concede that the late 2018 stock market correction was, in fact, a healthy occurrence to the extent it started to recouple asset prices to underlying economic fundamentals and risks. Often, the action of stock markets also becomes a signal to policy makers that adjustments are necessary. Perhaps policies will improve in 2019. Regardless, as portfolio managers, we've operated for some time with these risks in mind and will continue to do so.

Portfolio Discussion

Portfolio Performance

As noted above, the fund performed better than the S&P 500 during the fourth quarter's market decline. We think that both active portfolio management prior to the market correction and the fund's emphasis on high-quality stocks contributed to the result.

At the end of the third quarter 2018, we felt that one of the most salient aspects of the U.S. equity markets was that high-growth stocks had appreciated vastly more than virtually any other category of stocks. As of Sept. 28, 2018, the Russell 1000® Growth Index had returned 26.3% for the trailing one-year period compared with 9.45% for the Russell 1000® Value Index, a stark degree of growth stock outperformance (a longer-term comparison: for the 20 years to 12/31/2018, value stocks have actually outperformed growth stocks by about 1% per year). In our third quarter letter, we described how many of our year-to-date activities had centered on selling and trimming what we thought were expensive, faster-growing stocks to reinvest in cheaper, more moderately growing stocks. Examples we highlighted included our sales of Copart, Diageo, and O'Reilly stocks and our buys of PACCAR and Dollar Tree stocks. There were also a substantial number of trims and adds to existing positions that followed this same theme. In fact, portfolio turnover for the year ending September 30, 2018 was 40% -- the high end of our expected range.

The portfolio positioning away from highly-priced growth stocks bore some fruit in the fourth quarter on a relative returns basis. Again using the Russell 1000 Growth and Value indices, growth stocks underperformed value stocks during the quarter by about 4%, with the growth index down 15.89% and the value index down 11.72%. Our strategy has always used growth as a factor in valuation, not as an end in itself. Thus, the portfolio management team's valuation discipline, coupled with a persistent focus on high-quality companies, led the portfolio to be relatively well-positioned for the fourth quarter environment.

Portfolio Activity

We believe the seeds of value creation are often sown during times of market volatility. We endeavored to invest opportunistically this quarter in instances where we believed stock prices already reflected a substantial economic slowdown or where we believed business fundamentals would be resilient to a slower economy. Over the course of the quarter, the portfolio's cash balance was whittled down to the low single digits as a result of this activity.

First, we repurchased a stock we had just sold two months earlier at a substantially better price. Copart stock was added back to the portfolio in October after it fell 30% from its September high. The earnings announcement that catalyzed the correction in the stock was disappointing to those who had priced Copart for perfection, but not to us. We thought the double-digit unit volume growth and higher revenue per vehicle sold was in-line with reasonable expectations. While the consensus was disappointed in published profit margins, after analyzing the margins point-by-point and removing non-recurring or transitory components, we felt like the underlying business profitability was just fine. The stock continued to trade down in the days following the quarter, and we acted.

We repurchased Copart because we continue to appreciate Copart's position as a leading salvage car auctioneer with 35-40% of the U.S. market for such services. We also maintain conviction in the strength of Copart's network-effect competitive advantage and its difficult-to-replicate salvage yard real estate. The management team has a strong track record and compensation policies are well-aligned with shareholders. Looking forward, we expect a continued high salvage rate for accident cars ("salvage rate" = the % of accident cars declared total losses). Distracted driving and the increasing complexity of cars has led to a high-teens percentage salvage rate presently compared to low-teens as recently as twelve years ago. As long as U.S. and U.K. vehicle miles driven remain relatively steady, so should Copart's volume results, making this a business less reliant on strong GDP growth. The company has been working on establishing a presence in Germany, which would be its first foothold in continental Europe. Recent management commentary suggests the opportunity may be nearing critical mass, and that Germany could soon become a newly additive source of profits. We believe the German salvage market to be 1.5 times larger than the U.K.'s (the U.K. is already 1/6th of Copart's profits). Expansion beyond Germany, into continental Europe, further multiplies the opportunity that should be accessible to Copart over the medium-term. We think Copart's prospects are worth the investment at October's stock price.

Second, we established a new position in Lowe's Companies in December. Lowe's is North America's second largest home improvement chain with over $70 billion in sales and approximately 2,000 stores. We believe both Home Depot and Lowe's have been market share takers in the past few decades, and we expect this to continue. Smaller competitors can't match the product breadth, physical footprints and digital capabilities at the big two. The retail landscape has also been weeding out weaker competitors. For example, Lowe's in 2018 became a distributor of the Craftsman brand, which used to be Sears' key home improvement brand but came to Lowe's given Sears' distress.

The opportunity for a lucrative investment in Lowe's exists because of the degree of operating improvement Lowe's can achieve under new management. Home Depot has markedly outperformed Lowe's in organic sales growth and profit margin improvement over the past ten years, and our analysis indicates the difference is primarily attributable to underperformance by the prior Lowe's management team. Lowe's now has the team to make up much of the difference. The current chairman of the board at Lowe's, Richard Dreiling, has experience resurrecting operations at another U.S. retail concept, Dollar

General. We think Dreiling's proficiency will be extremely beneficial in positioning him to oversee Lowe's management. The newly installed CEO of Lowe's, Marvin Ellison, was the executive vice president of U.S. stores at Home Depot from 2008-2014 -- experience that might just be of value in the plan to replicate Home Depot's success. We believe Ellison's senior management team to have deep retail experience and to be capable of driving improvement. Ellison and his team have thoroughly diagnosed Lowe's issues and have instituted a credible operational plan in response. The majority of the improvement should come from straight forward initiatives like improving in-stock positions, engineering improved store efficiencies and implementing better merchandising. Regarding competition, bulky product sizes and the immediate and consultative dynamics of home improvement product purchases provide good competitive barriers to on-line only competitors. In aggregate, we believe there to be a lot of headroom to improve, and our modeling shows material upside to consensus estimates.

The recent stock market sell-off dragged Lowe's stock down from its September high by over 25% to its bottom in December. We think this provided an opportunity. We acknowledge that U.S. home price appreciation should continue to moderate, but we think that a still robust home improvement market and Lowe's own self-help initiatives make Lowe's a good long-term investment.

Finally, seven additions were made to existing positions across multiple sectors. In each case, we believed the upside to be material. We also sold JM Smucker and Oracle stocks in the quarter due to weakened conviction in their investment outlooks. We had thought Smucker's brands in the coffee, pet food and spreads categories were strong enough to overcome widespread sales weakness in the consumer packaged goods (CPG) industry, but persistent sales shortfalls caused us to shift our view. We now think that Smucker will continue be challenged along with its CPG peers. New competitors can more readily emerge today given lower barriers to entry in sales distribution (via on-line retail models), manufacturing (third-party outsourcing) and marketing (social media). Additionally, the brands of yesterday just don't seem to resonate as strongly with the customers of today, impacting demand. We think these effects likely extend into the future, and therefore we sold Smucker stock.

Regarding Oracle, too many consecutive years of growth below the rate of the broader IT industry, coupled with survey evidence of customers' lack of enthusiasm for Oracle, led us to sell our stake. Over the past few years, we expected a sales acceleration that never came and we don't know why that would change going forward. With the sale of Oracle, we decided to free up capacity for investments where we have higher confidence in future prospects.

Outlook

The risks on the investment landscape are now in full view, and financial markets have started to respond. This is good to the extent that the healthiest investment ecosystem is one where both the risks and opportunities are contemplated and factored into asset prices. Some of the excesses of 2018 have been wiped clean, but we are faced with a slower growth landscape. Apple's January 2, 2019 preannouncement of lower-than-expected revenues from China highlights that growth rates will need some time to recalibrate before stock price volatility subsides. Our working economic base case is that global growth is slower in 2019, but that the world otherwise moves forward. The Madison Investors Fund, though, is prepared for better or worse economic scenarios. The fund's investment strategy has been successfully employed to navigate the major market

downturns of 2000-2002 and 2008-2009, and the subsequent recoveries. The portfolio management team has been through dramatic market cycles and has used volatile periods to invest opportunistically. The current portfolio consists of stocks we like for the long-term because of the holdings' competitive advantages, strong balance sheets and good long-term growth prospects. We further believe that the Fund's current holdings will come out of any turbulence as stronger companies with their earnings power enhanced by opportunistic capital allocation at the hands of astute and capable management teams.

We thank you for your trust, and we remain invested alongside you for the long-term.

Matt Hayner *Adam Sweet*

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.

The Russell 1000® Growth index measures the performance of the Russell 1000's growth segment, which is defined to include firms whose share prices have higher price/to/book ratios and higher expected earnings growth rates.

Russell 1000® Value Index is designed to track those securities within the broader Russell 1000 Index that FTSE Russell has determined exhibit value characteristics.

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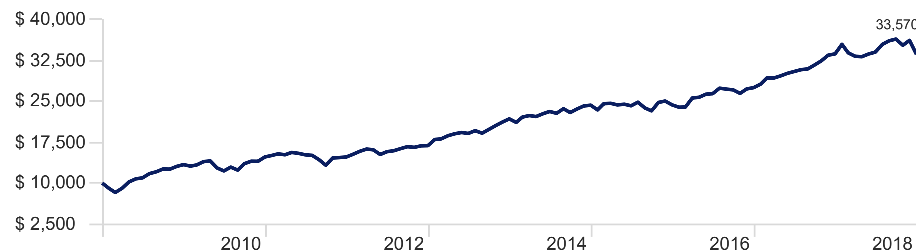
Madison Investors Fund

The Value of Long-Term Investing

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



Experienced Management

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Average Annual Total Returns[2] (%)

	Three Months	YTD	1 Yr	3 Yr	5 Yr	10 yr	Since Inception
Class Y	-7.64	-0.20	-0.20	11.37	9.08	12.87	10.65
Class R6	-7.63	-0.03	-0.03	11.54	9.28	-	10.40
Class A without sales charge	-7.68	-0.44	-0.44	11.09	8.80	-	9.91
with sales charge	-12.98	-6.15	-6.15	8.92	7.52	-	8.68
S&P 500® Index	-13.52	-4.38	-4.38	9.26	8.49	13.12	-

Calendar Year Returns[2] (%)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Class Y	33.73	10.44	0.00	14.05	29.08	11.54	0.23	12.97	22.51	-0.20
S&P 500® Index	26.46	15.06	2.11	16.00	32.39	13.69	1.38	11.96	21.83	-4.38

Risk Metrics (%)

		3 Yr	5 Yr	10 yr
Class Y	Upside Capture	94.09	90.47	90.82
	Downside Capture	70.26	78.62	84.17
	Beta	0.80	0.83	0.90

Characteristics

Total Number of holdings	29
Active Share	89.4
% Assets in Top 10 stocks	42.7
Portfolio Turnover	40%
Wtd. Average Maket Cap	$110.7

Fund Features

- Fund seeks long-term capital appreciation
- High conviction; 25-40 holdings
- High-quality growth companies, growth at a reasonable price style (GARP)
- Focus on risk management

Class	Ticker	Inception Date	Exp. Ratio[3]
A	MNVAX	9/23/13	1.20%
Y	MINVX	11/1/78	0.95%
R6	MNVRX	9/23/13	0.77%

Distribution Frequency

Annual

Total Net Assets

$265.2 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%. **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.

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

From February 6, 2009 through February 28, 2016 the investment adviser waived between 0.11% to 0.15% of its management and/or services fees annually for Class Y shares, 0.15% for Class A shares from September 23, 2013 to February 28, 2016; and 0.10% for Class R6 from September 23, 2013 until May 1, 2014. Investment returns reflect these fee waivers, without which returns would have been lower.

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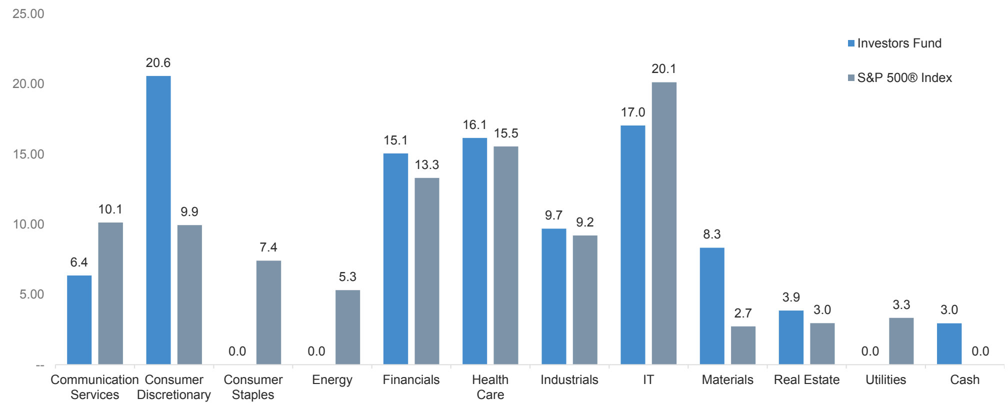
Sector Allocation (%)



Sector allocation is rounded to the nearest 0.1%.

Complete Stock Holdings (%)

PPG INDUSTRIES INC	5.0	STARBUCKS CORP	3.5
US BANCORP	4.6	LINDE PLC	3.4
JACOBS ENGINEERING GROUP INC	4.6	CARMAX INC	3.2
NOVARTIS AG SPONSORED ADR	4.4	VISA INC CLASS A SHARES	2.9
BROOKFIELD ASSET MANAGE CL A	4.2	PACCAR INC	2.9
BERKSHIRE HATHAWAY INC CL B	4.1	CDW CORP	2.7
ALPHABET INC CL C	4.1	BOOKING HOLDINGS INC	2.6
DOLLAR TREE INC	4.0	OMNICOM GROUP	2.3
LOWE S COS INC	3.9	ANALOG DEVICES INC	2.2
HENRY SCHEIN INC	3.9	JOHNSON + JOHNSON	2.2
AMERICAN TOWER CORP	3.9	COPART INC	2.2
TE CONNECTIVITY LTD	3.7	CHARLES SCHWAB CORP	2.1
DANAHER CORP	3.6	VARIAN MEDICAL SYSTEMS INC	2.0
COGNIZANT TECH SOLUTIONS A	3.6	ACCENTURE PLC CL A	1.8
TJX COMPANIES INC	3.5		

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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, growth and value investing risk, capital gain realization risks to taxpaying shareholders, foreign security and emerging market risk. More detailed information regarding these risks can be found in the fund's prospectus.

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.

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