Active Investment Synthesis:

No Boundaries, Fundamental Analysis, Independent Judgment

August 2016 *(updated February 2019)*

While deep industry knowledge is important, investment outcomes are even more important. We believe the interdisciplinary approach leads to better investment decisions because we're evaluating opportunities across sectors, geographies, and industries. We're allowing our bottom-up process to lead us to the best opportunities.

Executive Summary

- Fundamental, interdisciplinary analysts can often identify relative value in companies from different industries that have the same end markets. In contrast, sector specialists may not have the flexible perspective to best compare different business models in ever-evolving, dynamic markets.

- Attributes of high-performing, active fund management companies include a flat collaborative organizational structure that encourages quick diffusion of information across, and not just within, decentralized investment teams seeking optimal, risk-adjusted returns, academic research reveals.

- Passive's outperformance against the "average" actively managed fund is frequently cited, even though most active funds aren't that active. Rather, the minority of actively managed, focused funds with high active share tend to outperform their benchmarks, studies show.

Thornburg

INVESTMENT MANAGEMENT

Vantage Points vs. Tunnel Vision

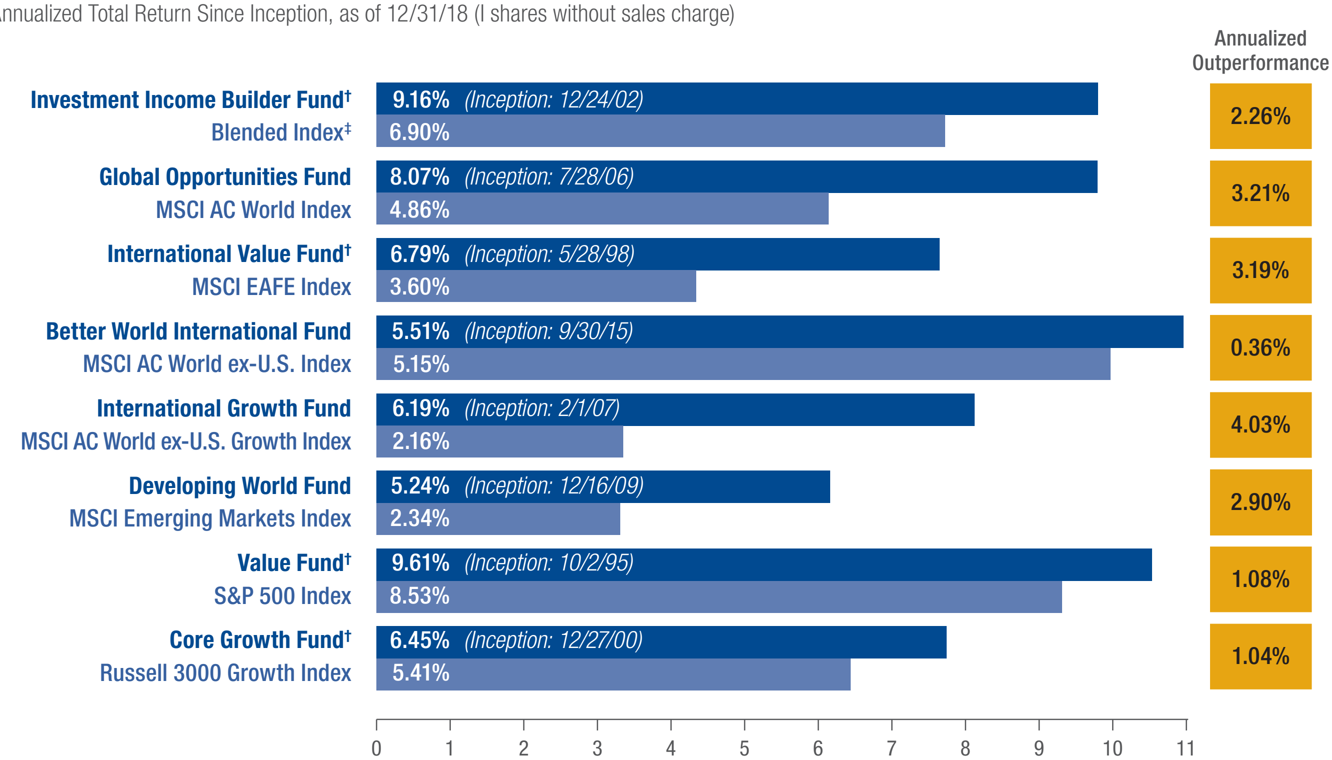
In investment management, style debates always rage with no real conclusion, as the tide shifts in one direction, then the other and back again. The distinct merits of active and passive investment management have been argued for decades. Within active management, firms with sector specialists have long squared off against shops with investment generalists. A more recent bone of contention pits mortal financial advisors against algorithms better known as "robo-advisors."

An online search on the "death of active management" yields around 450 million results. To be sure, many of those articles argue that reports of active management's demise are premature. As active managers, Thornburg Investment Management takes the view that active management is alive and well. We don't dispute passive investing advocates' academic research or industry data that show the "average" actively managed equity mutual fund underperforms its benchmark after fees. The glaring rejoinder: who would want to invest in the average actively managed fund when, according to perhaps the most widely cited study,[1] truly active, diversified equity funds have outperformed their benchmarks, net of fees? Beyond the academic debate, we rely on our own record: as of December 31, 2018, the class I shares of all eight Thornburg equity funds have outperformed their respective benchmarks over their lifetimes, with no survivorship bias; we have never shut or merged an equity fund.

How have we done it? Our investment process and philosophy are consistent and transparent, no complex financial engineering needed or applied. Thornburg investment professionals are curious, well-rounded, interdisciplinary analysts who engage in fundamental, bottom-up research of securities from different sectors, industries, and geographies. Their target investment universe extends far beyond the limitations of investment specialists. Our portfolios are diversified yet focused, with most comprising dozens, not hundreds or thousands, of holdings, as many index benchmarks sport. Our investment mandates are flexible, though they all share a bedrock principle of seeking value in market mispricings, whether stocks are classified as "value," "core," or "growth" by investment research firms. It's the same for our fixed income funds: we do our own research on every position, assessing its risks and potential rewards independently of credit rating agency appraisals. All of our portfolio managers personally invest in the funds they manage.

Chart 1 | Thornburg equity funds outperformance since inception

Annualized Total Return Since Inception, as of 12/31/18 (I shares without sales charge)



See page six for additional details.

Performance data shown represents past performance and is no guarantee of future results. Investment return and principal value will fluctuate so shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than quoted. For performance current to the most recent month end, visit thornburg.com or call 877-215-1330. The maximum sales charge for the class A shares is 4.50%. Inclusion of the sales charge would lower the results.

† Prior to inception of class I shares shown on page six, performance is calculated from actual returns of the class A shares adjusted for the lower I share expenses.

‡ Blended Benchmark is comprised of 75% MSCI World Index and 25% Bloomberg Barclays U.S. Aggregate Bond Index.

Thornburg Better World International Fund is excluded due to its short performance history.

Flat, Collaborative, and Attractive

Our flat organization differs from typical asset management firms. Most have a pyramidal structure, with a chief investment officer (CIO) at the top to determine the firm's macro or factor allocation views based on economic and market cycle points in this or that geography. Moving further down, portfolio managers occupy the middle and weave a portfolio together by threading the CIO's factor views with yarns of securities pitched up by the ranks of sector specialists at the pyramid's base.

By contrast, like every other portfolio manager at Thornburg, President and CEO Jason Brady and CIO Brian McMahon also serve as primary analysts on a number of stock and bond positions. There's no top-down, monolithic macro view that Thornburg's investment team must integrate into security selection and portfolio construction. That gives them latitude and accountability in the management of our funds.

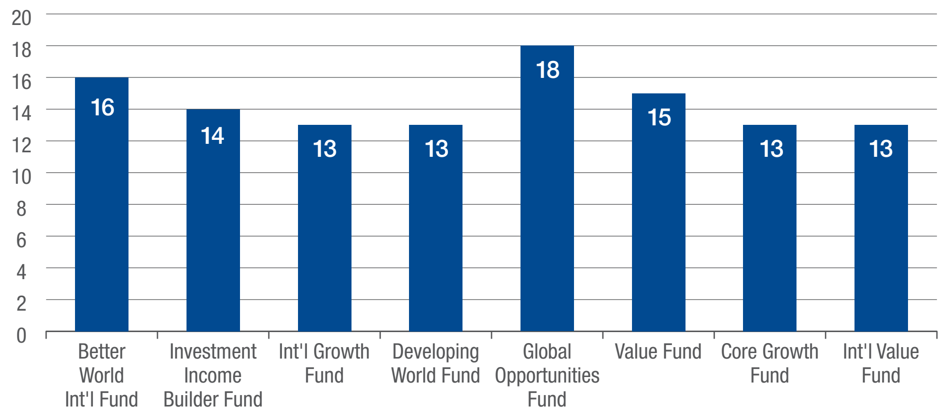
A mutual fund firm's organizational framework, it turns out, impacts performance. "Empirical evidence suggests that decentralized mutual funds have higher performance than their centralized counterparts," according to researchers at New York University and the University of Chicago.[2] "Fund families where major investment decisions are decentralized allow fund managers to run his or her own assets without substantial interference—and this discretion translates into higher performance," they concluded.

While not a disinterested party, the Affiliated Managers Group (AMG), which invests in boutique investment firms, studied results of more than 1,200 boutique active fund management firms with less than $100 billion in assets. It included only shops in which managers have significant investments in their own funds. The two-decade study ran through 2014 and examined 11 equity product categories. Results showed the average boutique outperformed the average big fund industry firms in nine of those 11 categories by an average annual 51 basis points and outpaced its primary index in nine of 11 equity product categories by an average annual 141 basis points after fees. Significantly, "across all product categories examined, the average boutique strategy outpaced its primary index 59% of the time over the trailing 20-year period net of fees," AMG adds.

How did they do it? "An investment-centric organizational alignment, typically geared to a distinct investment philosophy (e.g., value-oriented with strong focus on purchasing securities below their intrinsic value)," along with "a highly focused investment process (e.g., bottom-up stock picking)." Such an approach means the average boutique is "more likely to manage towards optimal risk-adjusted returns, often setting capacity limits to remain nimble," AMG points out.[3]

In addition to Thornburg's flat structure, collaboration is an integral component of our corporate culture. Research is shared not just within a fund group, but across them at the same time. Our more than three dozen investment professionals from both the equity and fixed income teams also sit alongside the open trading floor; the proximity further facilitates the sharing of ideas and research. In the article "Thornburg Stands Out from the Crowd," Morningstar's William Rocco aptly wrote: "The firm's culture is distinctive as well as attractive. Its investment staff remains quite collegial, with managers and analysts regularly contributing investment ideas to portfolios other than their own."[4]

Chart 2 | Number of investment professionals covering stocks in each Thornburg equity fund (as of 12/31/18)



"In my former role, [prior to Thornburg] I wore more of a sector specific hat in the sense that I covered a single sector and often it was around a single geography. I felt like this didn't always lead to the best investing outcomes, because my incentive as an analyst under that role was to get as many ideas from that sector into the portfolio, regardless of relative value compared to other sectors or even other geographies."

– Charlie Wilson, PhD
Portfolio Manager & Managing Director

"Here at Thornburg we are always in investment committee; our research process requires a lot of collaboration. It requires a number of different people looking at a whole bunch of asset classes, situations, and geographies to communicate all the time."

– Jason Brady, CFA
President, CEO & Portfolio Manager

No Turf, No Silos. "We're All Interested in Each Other's Success"

While portfolio managers and analysts alike have primary responsibility for specific names, their stock or bond coverage isn't ring-fenced. There is no "turf" or silos at Thornburg. To the contrary, "We're all interested in each other's research and success because that will benefit our own," says McMahon. Such openness is a must for those who would work at Thornburg, which is privately owned and in which all portfolio managers are owners. "We come across candidates who we think will make excellent analysts, but not here, because they don't appear to mesh very well with our collaborative culture."

Although investment team members have primary coverage responsibilities, all are investment generalists capable of expertly analyzing opportunities in differing industries and effectively comparing apples with oranges. To foster such versatility in the pursuit of recognizing relative value, they are welcome in meetings or calls with company executives or sell-side analysts hosted by colleagues from other teams. This also helps with quality control. "If you have a specialist whose recommendation is wrong, then you get it wrong in every fund that has a position based on that recommendation," notes Greg Dunn, portfolio manager on Thornburg's Core Growth and International Growth funds. "We like to have multiple people look at the same industry. It gives you another expert to discuss things and bounce them off of, and leads to better outcomes."

Our view is supported by a recent study from the Mason School of Business at the College of William & Mary and the Centre for Financial Research at the University of Cologne in Germany. Collaboration and timely information flows within investment management firms "lead to better fund performance" because they "increase both the breadth and depth of the information available to a portfolio manager, enabling…better investment decisions," the researchers reported.[5] The study examined 1,708 U.S. domestic equity funds at 159 asset management firms from June 2004 to March 2012. It found that "funds from families with high speed of information diffusion (relative to the median family) outperform funds from families with low speed of information diffusion by up to 60 basis points per year." Quickly sharing research and ideas across investment teams, and not just within the same team, can "update information sets…more frequently," generating new stock ideas and ways of appraising them among a firm's fund managers.

As One Stock Spawns Interest In Others, We Explore

That has been Thornburg's experience with the interdisciplinary approach. Dunn did the initial work on Visa, Inc., which went public in 2008. "I really liked the business, and that spawned our interest in Mastercard. We have since explored the broad and growing group of payments-related stocks around the world, some of which share characteristics that we like. They are covered by a bunch of different analysts at Thornburg," he notes.

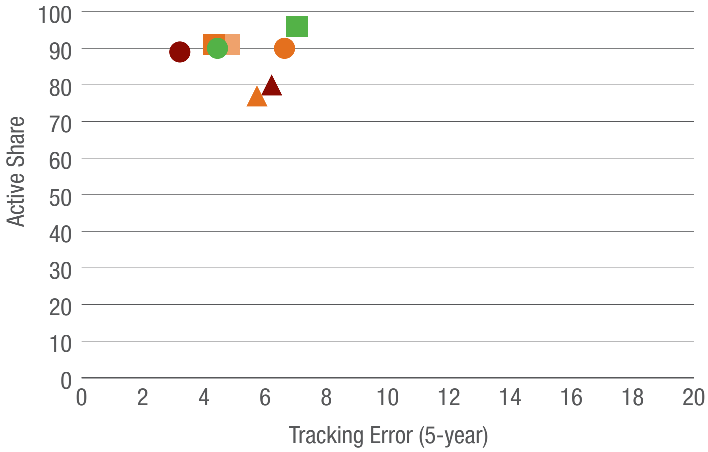
Given our flexible investment mandates and ability to synthesize diverse opportunities, Thornburg's equity portfolios typically have high active share, which has become something of an industry yardstick to measure just how active an active manager is. On a scale of zero to 100, portfolios whose positions differ from those of their benchmarks' by more than 60% are considered active, and those in the top quintile are said to have high active share.

We're benchmark agnostic, though we recognize the need to have something against which to measure our performance. Our funds exhibit high active share because they're focused, we don't much like what's in the benchmark, or don't find benchmark constituents attractively valued. Given the inflows into passive vehicles in recent years, many benchmark constituents have experienced

"The interdisciplinary investment process is at the heart of what we do. It gives us great flexibility to look globally for the best relative value opportunities, and we believe it leads to the best outcomes."

– Jason Brady, CFA

Chart 3 | Active share of Thornburg equity funds (as of 12/31/18)



	THORNBURG FUND	ACTIVE SHARE	BENCHMARK
●	Investment Income Builder Fund	90%	MSCI World Index*
■	Global Opportunities Fund	96%	MSCI AC World Index
■ ■	International Value Fund	91% 91%	MSCI EAFE Index MSCI AC World ex-U.S. Index
●	International Growth Fund	90%	MSCI AC World ex-U.S. Growth Index
▲	Developing World Fund	77%	MSCI Emerging Markets Index
●	Value Fund	89%	S&P 500 Index
▲	Core Growth Fund	80%	Russell 3000 Growth Index

Source: Thornburg Fund data calculated by Thornburg and Morningstar. Active share includes equities only.
*MSCI World Index is the equity component of the fund's Blended Index.

In ever dynamic markets, investment specialists don't seem to connect as many dots as interdisciplinary analysts.

sharp multiple expansion that may not be justified by underlying fundamentals. As passive investing is usually based on stock market capitalization or the amount of debt outstanding, the more they grow, the more passive investors must own, despite the rising price. This makes little economic or investing sense, especially to value-seeking investors.

Rather than strict reliance on numeric formulas, Berkshire Hathaway's Charlie Munger points out that he and Warren Buffett take "quality factors" into account. "It's like a bridge hand," he noted at the Daily Journal Corp's 2016 annual meeting. "You have to think about a lot of things. There is never going to be a formula. If that worked, every mathematical person would be rich." Does the renowned investment duo specialize in particular areas, or employ an interdisciplinary approach, he was asked. "Synthesis is reality…we need synthesis to understand anything." Comprehensive understanding provides "really good defense," he added. "Without synthesis, we would be blind."

Connor Browne, co-manager of Thornburg Value Fund, points out that this approach is also similar to that of eight market-beating CEOs profiled in William Thorndike Jr.'s 2012 book, *The Outsiders*.[6] These managers function like "foxes," with well-rounded knowledge and bases for comparison. They outperform competitors who work like "hedgehogs," whose knowledge runs a mile deep and basis for comparison an inch wide. Fox-like CEOs "had familiarity with other companies and industries and disciplines, and this ranginess translated into new perspectives, which in turn helped them to develop new approaches that eventually translated into exceptional results," Thorndike writes.

In investment management, interdisciplinary analysts seek to spot mispricings and compare relative values in securities of companies in different industries, which may even have the same end markets. Which business models, for example, offer the best ways of capitalizing on India's burgeoning middle-class consumers? Consumer tastes, government policy and market and economic conditions continually change, so too must businesses over time, as static models ultimately fall by the wayside. In ever dynamic markets, investment specialists don't seem to connect as many dots as interdisciplinary analysts.

Beyond Debates on Navigating the Investment Universe

There are many ways to generate wealth in the investment universe. It is a big expanse with $76 trillion in global equity market capitalization and a global debt market that, at $163 trillion, more than doubles those constellations of stocks.[7] There's plenty of room for active managers and index funds, live financial advisors and their robo competition, and sector specialists and investment generalists.

The debates will never be settled. Ultimately, though, results matter. We believe that, for more than three decades, Thornburg's results speak for themselves. ■

	TICKER	INCEPTION	YTD	1-YR	3-YR	5-YR	10-YR	Since Incep	Net	Gross
			AVERAGE ANNUAL TOTAL RETURNS AS OF DECEMBER 31, 2018						ANNUAL OPERATING EXPENSE RATIOS	
Investment Income Builder Fund										
A Shares Without sales charge	TIBAX	12/24/02	-4.62%	-4.62%	6.23%	3.47%	9.13%	8.79%	–	1.33%
With sales charge			-8.90%	-8.90%	4.62%	2.52%	8.62%	8.48%	–	–
I Shares	TIBIX	11/3/03*	-4.39%	-4.39%	6.55%	3.79%	9.47%	9.16%	–	1.04%
Blended Index			-6.42%	-6.42%	5.35%	4.17%	8.31%	6.90%	–	–
Global Opportunities Fund										
A Shares Without sales charge	THOAX	7/28/06	-20.92%	-20.92%	-0.10%	3.61%	11.19%	7.60%	–	1.28%
With sales charge			-24.48%	-24.48%	-1.62%	2.67%	10.68%	7.20%	–	–
I Shares	THOIX	7/28/06	-20.67%	-20.67%	0.24%	3.97%	11.66%	8.07%	–	0.97%
MSCI AC World Index			-9.42%	-9.42%	6.60%	4.26%	9.46%	4.86%	–	–
International Value Fund										
A Shares Without sales charge	TGVAX	5/28/98	-20.05%	-20.05%	-0.95%	-0.57%	5.30%	6.33%	–	1.27%
With sales charge			-23.64%	-23.64%	-2.46%	-1.48%	4.81%	6.10%	–	–
I Shares	TGVIX	3/30/01*	-19.82%	-19.82%	-0.61%	-0.21%	5.70%	6.79%	–	0.91%
MSCI EAFE Index			-13.79%	-13.79%	2.87%	0.53%	6.32%	3.60%	–	–
MSCI AC World ex-U.S. Index (Gross)			-14.20%	-14.20%	4.48%	0.68%	6.57%	4.11%	–	–
Better World International Fund										
A Shares Without sales charge	TBWAX	9/30/15	-14.28%	-14.28%	3.70%	–	–	4.70%	1.83%	2.12%
With sales charge			-18.12%	-18.12%	2.11%	–	–	3.23%	–	–
I Shares	TBWIX	9/30/15	-13.59%	-13.59%	4.52%	–	–	5.51%	1.09%	1.35%
MSCI AC World ex-U.S. Index			-14.20%	-14.20%	4.48%	–	–	5.15%	–	–
International Growth Fund										
A Shares Without sales charge	TIGAX	2/1/07	-17.01%	-17.01%	1.91%	-0.30%	11.34%	5.67%	–	1.32%
With sales charge			-20.74%	-20.74%	0.36%	-1.21%	10.83%	5.27%	–	–
I Shares	TINGX	2/1/07	-16.74%	-16.74%	2.30%	0.10%	11.86%	6.19%	–	0.99%
MSCI AC World ex U.S. Growth Index			-14.43%	-14.43%	4.19%	1.69%	7.15%	2.16%	–	–
Developing World Fund										
A Shares Without sales charge	THDAX	12/16/09	-15.18%	-15.18%	5.58%	-0.69%	–	4.73%	–	1.48%
With sale s charge			-19.01%	-19.01%	3.98%	-1.59%	–	4.20%	–	–
I Shares	THDIX	12/16/09	-14.87%	-14.87%	6.04%	-0.28%	–	5.24%	1.09%	1.16%
MSCI Emerging Markets Index			-14.58%	-14.58%	9.25%	1.65%	–	2.34%	–	–
Value Fund										
A Shares Without sales charge	TVAFX	10/2/95	-9.69%	-9.69%	5.89%	6.48%	11.23%	9.17%	–	1.33%
With sales charge			-13.75%	-13.75%	4.28%	5.51%	10.72%	8.96%	–	–
I Shares	TVIFX	11/2/98*	-9.39%	-9.39%	6.29%	6.89%	11.66%	9.61%	0.99%	1.06%
S&P 500 Index			-4.38%	-4.38%	9.26%	8.49%	13.12%	8.53%	–	–
Core Growth Fund										
A Shares Without sales charge	THCGX	12/27/00	-2.56%	-2.56%	5.64%	3.93%	13.00%	5.93%	–	1.34%
With sales charge			-6.94%	-6.94%	4.04%	2.98%	12.48%	5.66%	–	–
I Shares	THIGX	11/3/03*	-2.20%	-2.20%	6.06%	4.35%	13.50%	6.45%	0.99%	1.05%
Russell 3000 Growth Index			-2.12%	-2.12%	10.85%	9.99%	15.15%	5.41%	–	–

*Prior to inception of this share class, performance is hypothetical and was calculated from actual returns of the class A shares adjusted for the expenses of the newer share class.

Not annualized for periods less than one year.

Performance data shown represents past performance and is no guarantee of future results. Investment return and principal value will fluctuate so shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than quoted. For performance current to the most recent month end, visit thornburg.com or call 877-215-1330. The maximum sales charge for the class A shares is 4.50%. There is no up-front sales charge for class I shares. Thornburg Investment Management and/or Thornburg Securities Corporation have contractually agreed to waive fees and reimburse expenses through at least February 1, 2020, for some of the share classes; these are reflected in the net expense ratio. For more detailed information on fund expenses and waivers/reimbursements, please see the fund's prospectus.

Important Information

Before investing, carefully consider the Fund's investment goals, risks, charges, and expenses. For a prospectus or summary prospectus containing this and other information, contact your financial advisor or visit thornburg.com. Read them carefully before investing.

Thornburg Equity funds are available in other share classes, please visit thornburg.com for more information.

Funds invested in a limited number of holdings may expose an investor to greater volatility.

Quotes are for information purposes only and should not be considered an endorsement, testimonial or recommendation of any product or viewpoint.

Any securities, sectors, or countries mentioned are for illustration purposes only. Holdings are subject to change. Under no circumstances does the information contained within represent a recommendation to buy or sell any security.

As of 11/30/18 Visa Inc. is held in the Core Growth Fund and the International Growth Fund, comprising 3.6% and 2.3% of the portfolios, respectively.

As of 11/30/18 Mastercard is held in the International Growth Fund, comprising 2.3% of the portfolio.

Investments carry risks, including possible loss of principal. Additional risks may be associated with investments outside the United States, especially in emerging markets, including currency fluctuations, illiquidity, volatility, and political and economic risks. Investments in small- and mid-capitalization companies may increase the risk of greater price fluctuations. Portfolios investing in bonds have the same interest rate, inflation, and credit risks that are associated with the underlying bonds. The value of bonds will fluctuate relative to changes in interest rates, decreasing when interest rates rise. Investments in the Funds are not FDIC insured, nor are they bank deposits or guaranteed by a bank or any other entity.

Class I shares may not be available to all investors. Minimum investments for the I share class may be higher than those for other classes.

Active Share – A measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index.

Tracking Error – A measure of how closely a portfolio follows its benchmark. Typically, it's the standard deviation of the difference in returns between a portfolio and the benchmark. Actively managed portfolios tend to have a higher tracking error compared to passively managed investments.

The Bloomberg Barclays U.S. Aggregate Bond Index is composed of approximately 8,000 publicly traded bonds including U.S. government, mortgage-backed, corporate and Yankee bonds. The index is weighted by the market value of the bonds included in the index.

Thornburg Investment Income Builder Fund's Blended Index is composed of 25% Bloomberg Barclays U.S. Aggregate Bond Index and 75% MSCI World Index, rebalanced monthly.

The MSCI All Country (AC) World Index is a market capitalization weighted index that is representative of the market structure of 47 developed and emerging market countries in North and South America, Europe, Africa, the Middle East, and the Pacific Rim. The index is calculated with net dividends reinvested in U.S. dollars.

The MSCI All Country (AC) World ex-U.S. Index is a market capitalization weighted index representative of the market structure of 46 developed and emerging market countries in North and South America, Europe, Africa, the Middle East, and the Pacific Rim, excluding securities of United States issuers. Beginning in January 2001, the index is calculated with net dividends reinvested in U.S. dollars. Prior data is calculated with gross dividends.

The MSCI All Country (AC) World ex-U.S. Growth Index is a market capitalization weighted index that includes growth companies in developed and emerging markets throughout the world, excluding the United States.

The MSCI EAFE (Europe, Australasia, Far East) Index is an unmanaged index. It is a generally accepted benchmark for major overseas markets. Index weightings represent the relative capitalizations of the major overseas developed markets on a U.S. dollar adjusted basis. The index is calculated with net dividends reinvested in U.S. dollars.

The MSCI Emerging Markets (EM) Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets Index consists of the following 24 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

The MSCI World Index is an unmanaged market-weighted index that consists of securities traded in 23 of the world's most developed countries. Securities are listed on exchanges in the U.S., Europe, Canada, Australia, New Zealand, and the Far East. The index is calculated with net dividends reinvested in U.S. dollars.

The Russell 3000 Growth Index is an unmanaged index comprised of those Russell 3000 companies with higher price-to-book ratios and higher forecasted growth values. The stocks in this index are also members of either the Russell 1000 Growth or the Russell 2000 Growth indices. Source: Frank Russell Company. Source: Frank Russell Company.

The S&P 500 Index is an unmanaged broad measure of the U.S. stock market.

The performance of any index is not indicative of the performance of any particular investment. Unless otherwise noted, index returns reflect the reinvestment of income dividends and capital gains, if any, but do not reflect fees, brokerage commissions or other expenses of investing. Investors may not make direct investments into any index.

Footnotes

1. Antii Petajisto, "Active Share and Mutual Fund Performance," *Financial Analysts Journal*, Volume 69, Number 4.
2. Marcin Kacperczyk, "Does Firm Organization Matter? Evidence from Centralized and Decentralized Mutual Funds," New York University, and Amit Seru, University of Chicago, March 2012.
3. "The Boutique Premium," Affiliated Managers Group, Inc. June 2015.
4. "Thornburg Stands Out from the Crowd," Morningstar, January 2012.
5. Gjergji Cici, Stefan Jaspersen, and Alexander Kempf, "Speed of Information Diffusion within Fund Families," February 2015.
6. William N. Thorndike Jr., 2012. *The Outsiders*. Massachusetts. Harvard Business Press.
7. World Federation of Exchanges, McKinsey Global Institute, Haver, BIS, Deutsche Bank.

 2/7/19