ADVISOR PERSPECTIVES
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A Top-Performing, Global ESG Fund

October 22, 2018
by Robert Huebscher

Di Zhou and Jim Gassman are co-managers of Thornburg Better World International Fund (TBWIX). The Fund is primarily invested in a broad range of international securities issued by companies that demonstrate one or more positive environmental, social and governance ("ESG") characteristics identified as significant by Thornburg.

Since its inception on 9/30/15, through 9/30/18, the fund has earned an annualized rate of return of 10.96%, outperforming its benchmark, the MSCI ACWI Ex-U.S. USD index, by 117 basis points. It has outperformed its Morningstar peer group average by 239 basis points and is in the 6th percentile of that peer group. As of 9/30/18, the fund has been rated five stars by Morningstar.

Jim Gassman is portfolio manager for Thornburg Investment Management. Jim joined the firm in 2011 as a senior equity research analyst, was promoted to associate portfolio manager in 2014, and was named portfolio manager and managing director in 2018.

Jim holds a BS in business administration from the University of the Pacific and an MBA from Tulane University. Prior to joining Thornburg, Jim was employed at Baird Investment Management as a senior equity analyst and AIM Investments as an analyst and portfolio manager.

Di Zhou is portfolio manager for Thornburg Investment Management. Di joined the firm in 2010 as an equity research analyst, was promoted to associate portfolio manager in 2014, and was named portfolio manager and managing director in 2015.

Di holds a BA in business administration from the Marshall School of Business at the University of Southern California and an MBA from the University of the Chicago Booth School of Business. Prior to graduate school, she was employed at Wilshire Associates.

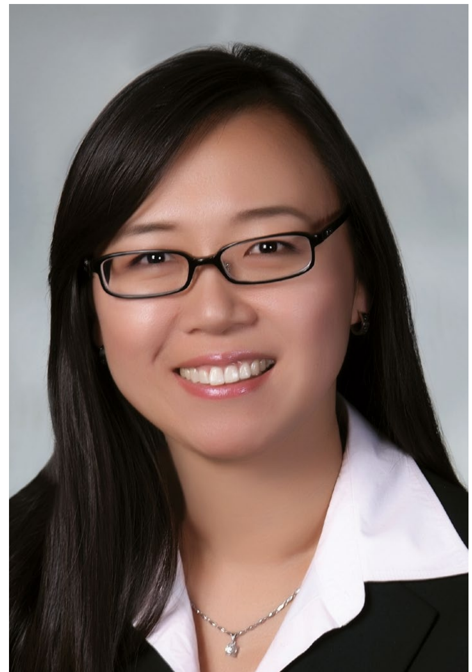
I interviewed Di and Jim last week.

Bob: What is the mandate of Thornburg Better World International Fund? What guidelines do you use for portfolio construction?

Jim: The goal of the fund is to outperform the benchmark. Importantly, it is a non-ESG benchmark, the MSCI ACWI Ex-U.S. index. Our style is an international large-cap core fund that uses ESG and stock selection to achieve strong risk-adjusted returns.

We start by using Thornburg's "three-basket" structure, which is well-known in the industry, to select stocks that will perform relatively well in all markets and dampen some of the volatility. The baskets are 1) basic value, 2) consistent earners, and 3) emerging franchise companies. Basic value tends to capture some of the more cyclical companies. The consistent earners are companies that do well through all cycles. Emerging franchises capture some of the "growthier" elements of the market.

We are a very concentrated fund. We have high active share versus our benchmark; it is typically over 80% and is currently over 90%. This, combined with differentiated stock picking, drives our success.


Di Zhou, CFA, FRM®

Bob: What is your risk-management process?

Di: As fundamental bottom-up managers, we take a typical approach in how we think about risk management. We start with stock selection. We want to know everything about our stocks and have a solid investment thesis behind them. We do all the fundamental research on a stock before we invest.

The second step is diversification. We have diversification mandates in terms of maximum security positions, sector and geography.

Third, and most important, is what Jim talked about with the three baskets, a methodology Thornburg has practiced for almost 30 years since the firm began making equity investments. The three baskets classify stocks by economic sensitivity and describe how they perform in different parts of the economic cycle. For example, Jim talked about basic value. We consider them to be pro-cyclical stocks. When the economy is doing well, they tend to do really well; but when the economy is not doing well, they tend not to do so well.

Consistent earners are very different. They have very visible cash flow-generation capabilities. Even if the economy is not doing so well, it doesn't impact their free cash flow as much. Companies in sectors like consumer staples and utilities are typically consistent earners. By using the three-basket approach, we add another layer of diversification and risk-management to our fundamental process.

The last piece is a quantitative factor-based risk model. We use FactSet data, along with a number of factors that slice and dice our portfolio. Jim and I examine a monthly report to identify the biggest risks in our portfolio according to the quantitative model and figure out whether they are intended or unintended. If the risks are intentional, that's fine. If it's really a risk that we didn't think existed and it shows up in the risk report, then it warrants an investigation.

Bob: Please tell me about some of your larger positions and how they fit within your overall mandate.

Jim: One of the companies we like to talk about is Bureau Veritas (BVI FP). They are a testing, inspection, and certification (TIC) company. There are three such companies in the world of substantial size.

The TIC companies act as a global judge of goods traveling around the world. Much like wanting one of the big accounting firms in the U.S. to do your books because they have such a good reputation, these TIC companies work in much the same way. If a company has a product and they are trying to sell it to Walmart, they want it tested by one of the big reputational firms, and BVI happens to be one of the big three.

For example, if Walmart buys a toy from China, it asks the manufacturer to get it tested by one of the big three firms to make sure that the product is up to U.S. or European codes and standards, or those of wherever the product will be sold. It is a very complex business because of the need to have testing facilities around the world, along with the need to know all regulations.

The company's mission hits right at the heart of ESG. It makes sure that these goods and services are a positive for society. BVI is also very reputationally dependent, so that underscores the quality of their business and its competitive advantages. While the three big companies in this space overlap in their capabilities, each has its own specialization. BVI focuses on oil, and tests the quality of oil on rigs as they move around the world. It also specializes in marine businesses. Neither of the other two companies have specializations in these areas.

Di: I'll give you another example. A newer holding in our fund is Prysmian (PRY IM). This Italian company makes submarine cables that go underneath the sea and connect an offshore wind turbine to an onshore grid. Clearly, this company is benefiting from a number of secular growth patterns. A lot of the offshore wind farms built around the globe are in Europe, but now we see them in Asia, most recently in Taiwan. These cables connect the wind turbine in the middle of the ocean to land and to the grid.

We keep hearing German regulators say, "We are going to reduce our electricity reliance on coal-generated power," because Germany is a big coal-power country. But its industrial facilities are all in the southern part of Germany, the same as is its coal-fired power plants. If they close down all those coal-fired plants, and bring down wind power from the northern part of Germany, they need a transmission grid and cables. Prysmian is very well-positioned to support that endeavor. It is by far the largest in the industry, and there are only three big ones globally. It is three-times as large as the second largest player.

> **"We keep hearing German regulators say, 'We are going to reduce our electricity reliance on coal-generated power,' because Germany is a big coal-power country."**

Another reason we like this company is it recently bought a smaller competitor in the U.S. called General Cable. The synergy it can generate from this merger, and the rationalization in terms of footprint and procurement, has been underestimated by the market. Because it is Italian, it is burdened by geopolitical risks and the stock has been unfairly sold off. Its valuation is very attractive and not reflective of the positive fundamentals we see in this company.

Bob: The fund has performed very well over the three years since its inception. To what do you credit that outperformance?

Jim: We link the outperformance to our process, which starts with good stock selection. We integrate solid fundamental and ESG analysis along the way. This combination is the reason for our long-term success.

Bob: In your most recent commentary, you wrote that you generally avoid fossil-fuel investments. I want to understand how far that mandate extends. Does that include so-called "clean coal" technologies? Do you invest in nuclear energy companies?

Jim: We are a low-carbon fund and we are approximately 60% below our index in terms of its carbon footprint. We generally avoid fossil-fuel investments, mostly because they tend to produce a ton of carbon. But also as we evaluate them, they tend to be less sustainable and businesses that are not as good.

Generally, we look for opportunities to invest in new and green companies, but they need to have two things. They need to be not only a good ESG story, but they also must have a good business story.

We don't invest in clean coal. Due to its low carbon, we can invest in nuclear energy. We have one investment, Enel, an Italian utility company, which has a great renewable-energy story. Its revenue is somewhere around 42% renewable energy, with mandates to get it above 50% in the next few years.

Jim Gassman

It's also a very good story, not only from an Italian perspective, but because it has assets around the world that are growing much faster in a more stable way than other Italian companies.

Di: We link carbon to environmental issues. Although a built-out nuclear plant doesn't produce any carbon emissions, we can't just think about a nuclear plant only after it has been built. We take a holistic approach and look at how much carbon is emitted over its production life cycle. That is true whether it's a clean-coal scrubber or nuclear plant—or a sustainable energy generator, for that matter—and how much carbon is emitted from a total life-cycle emission perspective.

Bob: In that same commentary, you wrote about new regulations, such as Basel IV and IFRS 9, and their impact on banks. Can you expand on this and how this impacts your investments?

Di: Let's take a step back to think about the great financial crisis. Much of that was due to banks that overstretched or took on risk very liberally with their balance sheets. Thereafter, we saw an increased level of regulatory pressure in the U.S. and then in Europe. Basel IV was the regulatory change to respond to what happened during the great financial crisis.

Basel IV focuses on risk-weighted assets and ensures that banks are adequately capitalized to offset the risks they take. That means banks must have more capital than ever before to make them safer than in the 2008-2009 period.

This impacts profitability for banks. When they have to hold more capital, the return gets compressed. Despite the fact that the Basel IV regulation was actually lighter than many feared, it is nonetheless more burdensome than before. We are looking for very strong franchises in the European bank space with strong competitive advantages, capital and return-generation capability, and therefore won't be impacted by changes in regulatory mandates.

Bob: We recently conducted an extensive survey of financial advisors to understand how they select ESG/SRI investments. One of our findings was that there is a lot of uncertainty about whether one should expect to sacrifice performance when investing in a fund such as yours, as compared to a non-ESG fund. What guidance do you offer for advisors on this question?

Jim: The perception that ESG hurts returns is wrong. It comes from a history of older ESG funds that were too narrow in scope. An ESG fund that was just a solar fund would do well if solar stocks were doing well, but it would do poorly if solar stocks were doing poorly. We run a much more diversified fund. In fact, these days most ESG funds are more diversified.

There are a number of studies that show ESG helps with risk-adjusted returns. One of them, a recent study from Bank of America, back-tested non-ESG factors and how they did. When they added ESG to those factors, in almost every case it not only helped returns, but it lowered risk.

There was also a meta-study that put a bunch of studies in three different buckets: funding costs, asset-based returns such as return-on-invested capital (ROIC) and return on equity, and most importantly market-based returns. In almost every case, these studies showed that ESG helped returns in all three of those buckets. There were only a few cases in which returns were neutral or negative.

Di: The bottom line is that we are fiduciaries. We want to maximize our shareholders' value. We are not going to disadvantage our shareholders for any reason. Our ESG process is integrated in our fundamental research and bottom-up analysis. That's our goal—to achieve superior risk-adjusted returns for our shareholders.

Bob: Another concern we found that is prevalent among advisors is that the rules for selecting and screening ESG investments are imprecise and may not align with a client's objectives. How should advisors respond to this?

Jim: We have identified material ESG factors, and we think that those factors should be broadly attractive to most ESG investors. Importantly, these factors have been shown to lead to better investment returns. While it is difficult to satisfy every investor's values, we attempt to satisfy the broader swath of investors' concerns.

We break those material factors into environmental, social and governance—the E, S and G. For the environmental part we look for efficiency in carbon, waste, water and energy. The most efficient companies tend to have higher margins and control their costs better. Higher margins lead to better returns on capital, and better returns on capital lead to better investments.

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In the social component, we look for a high percentage of diversity within the workplace. That happens in two different ways. Around the world, most of the data on C-suites doesn't capture ethnic diversity, but they study gender diversity, so that's what we stick to. We look for diversity on the board, and more importantly, in management ranks. What we found is that companies with a higher percentage of women in their management ranks tend to do better than companies with a lower percentage. A study from Credit Suisse found that companies with management teams of 50% or more women outperform those with no women by as much as 3% per year.

The last area is governance. Companies that disclose more ESG metrics than others tend to outperform the ones who don't describe much of their ESG processes. Also, an independent board of directors is important. A CEO should want people—not friends—governing him and not rubberstamping the decisions that he makes.

Management incentive is also important. We want these incentives to consider return-based metrics, such as ROIC within their compensation as opposed to just growth. For example, if a company CEO was compensated highly for growing at a very fast rate—perhaps 10%—he or she might do that in unscrupulous, unethical ways. But by imposing a return-on-capital metric, it limits the things that a CEO can do, and the company has to grow in a much more positive and sustainable way. We want to make sure that the companies that we invest in have management that is compensated by ROIC.

Bob: How would you differentiate your fund from its peers?

Di: Thornburg has been investing in international equity markets for nearly 30 years, with the same fundamental research process. Our three-basket approach has been tested through different market cycles.

Our international ESG product is a natural extension of our international equity product. Prior to the launch of our international ESG product, we sub-advised a few SRI mandates for close to 10 years. We gained a lot of experience doing that. By the time we launched our own product, we defined what we wanted to do.

Integrating ESG analysis in our fundamental research is key to our process. A lot of our ESG peers have two separate teams. One does fundamental research. The other just does ESG analysis, giving a thumbs up or down. They then marry those two together and construct a portfolio.

For us, integration is key—having one person look at both the fundamental aspects and ESG factors of a company gives us a holistic picture.

We are unique in the way we identify material factors. We can identify thousands of factors that can be associated with ESG, but do they all matter from an investing or probabilities perspective? Not really. We narrow down and focus on the key factors for each of the companies in which we invest.

We differ from our peers in our use of ESG momentum. A lot of our peers, especially in the quant space, use an ESG ranking system—essentially a scoring system—to pick the best-in-class ESG stocks. But for us, the ESG scoring system has been pretty poor and varies by geography and industry. Some countries and sectors do a very good job and others don't. Purely looking at one number doesn't tell the whole story.

We also focus on a category called "ESG momentum," which captures companies that optically might have a lower score from their disclosure perspective. This occurs when they are not disclosing the data that they should disclose, and therefore deserve a higher score, or they are changing or improving their ESG policies or procedures. In that case, the score should improve as a result. Finding the best-in-class and improving ESG companies is what we call ESG momentum. We construct a portfolio around that, which differentiates us from other companies.

Bob: How do advisors typically use your fund in a client's asset allocation?

Jim: We think they use it in two different ways. Better World is not only an ESG fund, but it's also a large-cap core international fund. Statistics show that more and more people are starting to care about ESG in their investments. About 20% of investors want ESG in their portfolio, and 75% are starting to consider ESG when they think about their investments. We think ESG is very early in its cycle, but it's going to grow over time. We can be categorized as an ESG fund, and that would be great on its own. But ultimately, we can be used as both an ESG fund and a large-cap international core fund, which is our benchmark and how we are ranked against our peers. We hope that our relative outperformance compared to our broad benchmark and peers will capture investors' attention.

Thornburg Better World International Fund
Average Annual Total Returns (as of 9/30/18)

	YTD	1-YR	3-YR	SINCE INCEP.
A Shares (Incep: 9/30/15)				
Without sales charge	-1.49%	5.37%	10.09%	10.09%
With sales charge	-5.90%	0.60%	8.42%	8.42%
I Shares (Incep: 9/30/15)	-0.87%	6.15%	10.96%	10.96%
MSCI AC World ex-U.S. Index (Since 9/30/15)	-3.09%	1.76%	9.97%	9.97%

Periods less than one year are not annualized.

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 Fund's A shares is 4.50%.The total annual operating expenses for the Fund are as follows: A shares, 3.17%; I shares, 1.65%. Thornburg Investment Management and/or Thornburg Securities Corporation have contractually agreed to waive fees and reimburse expenses through at least June 15, 2019, for some of the share classes, resulting in net expense ratios of the following: A shares, 1.83%; I shares, 1.09% For more detailed information on fund expenses and waivers/reimbursements, please see the fund's prospectus.

IMPORTANT INFORMATION

Unless otherwise noted, the source of all data, charts, tables and graphs is Thornburg Investment Management, Inc., as of 9/30/18.

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. Investments in the Fund are not FDIC insured, nor are they bank deposits or guaranteed by a bank or any other entity.

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

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.

Diversification does not assure or guarantee better performance and cannot eliminate the risk of investment losses.

As of 8/31/18, the top 10 long equity positions of the fund were: Resona Holdings, Inc., 3.7%; Sony Corp., 3.1%; Compass Group plc, 3.0%; ING Groep N.V., 2.9%; AIA Group Ltd., 2.8%; Taiwan Semiconductor Manufacturing Co. Ltd., 2.7%; UBS Group AG, 2.6%; Novartis AG, 2.6%; Intact Financial Corp., 2.3%; Kao Corp., 2.2%.

Based on total returns before sales charges, Morningstar ranked the fund (I shares) in the top 5% for the one-year period and 6% over three years, among 783 and 655 Foreign Large Blend funds, respectively, as of 9/30/18.

Overall Morningstar Rating™ among Foreign Large Blend funds, based on risk-adjusted returns, uses a weighted average of the fund's three-year rating, 5 stars among 655 funds, as of 9/30/18.

To determine a fund's Morningstar Rating™, funds and other managed products with at least a three-year history are ranked in their categories by their Morningstar Risk-Adjusted Return scores. The top 10% receive 5 stars; the next 22.5%, 4 stars; the middle 35%, 3 stars; the next 22.5%, 2 stars; and the bottom 10% receive 1 star. The Risk-Adjusted Return accounts for variation in a managed product's monthly excess performance (excluding sales charges), placing more emphasis on downward variations and rewarding consistent performance. Other share classes may have different performance characteristics.

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

Free-Cash-Flow Yield – An overall return evaluation ratio of a stock, which standardizes the free cash flow per share a company is expected to earn against its market price per share. The ratio is calculated by taking the free cash flow per share divided by the share price.

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. The index is calculated with net dividends reinvested in U.S. dollars.

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.

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.

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