The Performance of Faith-based Mutual Funds: A Matched-Pair Approach

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Using a matched-pair approach, this study investigates the performance of faith-based mutual funds in the United States from 2007 to 2015. It finds that faith-based funds do not systematically underperform similar secular SRI or conventional funds. Faith-based funds tend to be small and share with similarly-sized conventional funds the challenge of attaining sufficient size to fully exploit economies of scale in investing. Given the high growth potential for faith-based investing on a global level, it is possible that this handicap might disappear.

INTRODUCTION

While some in faith traditions forswear participation in the stock market, or divorce ethical considerations from their participation, others embrace active stewardship (Porter and Steen 2003). In recent years, a specifically religious concern has been a growing part of socially responsible investing (SRI) (Peifer 2013). Religious belief was, in fact, the first motivation for socially responsible investment (Kurtz 2008, p. 253). Antecedents to these developments can be traced to Max Weber (2005 [1905]) in the Christian world, and to Ibn Khaldûn (2015 [1377]).

Faith-based investing may be described as not violating an investor's religious beliefs. Such investing is generally referred to as "morally responsible investing" (MRI) and as such a distinctive subset of socially responsible investing (Ghoul and Karam 2007). Faith-based investing differs from secular SRI, which generally emphasizes human rights and environmental protection. Such priorities can actually clash with some religious filters that screen out companies that allow for alternative lifestyles and/or provide benefits for partners in pre-marital or same-sex relationships.

Beer, Estes and Deshayes (2014) note that socially responsible investing and faith-based investing started as mutual funds managed by a small number of specialty retail investment companies and evolved into an investment philosophy which some of the large investment institutions have adopted. Mansour and Jlassi (2014) indicate that 71 out of 250 SRI funds in the United States have a religious affiliation, and that among these are Islamic as well as Christian mutual funds. Faith-based investing is also significant in the Islamic world, in both Arab and non-Arab Muslim countries.

Faith-based mutual funds that invest according to Christian and Muslim principles are run by about a dozen fund families and are followed by Morningstar (Kathman 2012). They include small-, mid- and large-cap, fixed income, value, growth and sector funds. Fund managers emphasize that these funds are open to all investors. For example, about 90 percent of the investor base of the Shari'ah-compliant Amana Mutual Funds is other than Muslim.

Faith-based funds may, or may not be managed by persons of the same faith as that guiding the investments of the fund. For example, the manager of the Amana Mutual Fund Trust (an Islamic fund) in the US is not a Muslim. In contrast, the Azzad Fund (Islamic) and the Ave Maria Mutual Funds (Catholic) are led by members of those respective faiths. However, in all cases fund managers rely upon advisory boards and consulting companies to provide screening services, based on a pre-determined set of qualitative and sometimes quantitative criteria; fund managers then pick stocks from the screened universe.

Faith-Based Investing

Forte and Miglietta (2007) divide the process of faith-based investing into three distinct stages. The first stage consists of portfolio asset allocation. The second involves selecting the instruments and trading strategies; and, the third involves income distribution and purification. In the first stage, the fund manager is limited to a restricted universe of companies that pass a set of religious screening criteria. He or she sifts through the screened universe in search for companies that are expected to outperform the market on a risk-adjusted basis. In the second phase, the manager is restricted in the trading strategies that can be used. For instance, Shari'ah prohibits speculation, short sales and margin trading, or combining two contracts into one.

In some cases, religious strictures can be relaxed. Hassan and Girard (2010) point out that most Islamic scholars allow an investment in the common shares of companies with a small amount (less than 5 percent) of interest income or revenues from non-halal business activities. In the third stage of faith-based investing, "impure" earnings can be "cleansed" by giving them away to designated charities. Thus, if 4 percent of a company's income is derived from the sale of alcohol, then 4 percent of dividend payments must be donated to charities. As a case in point, in 2000, Microsoft was removed from the Dow Jones Islamic Index, because its interest income reached 9 percent.

Interest in Islamic investing was invigorated by the launching of the Dow Jones Islamic market index (DJIMI), and the FTSE Global Islamic Index Series (GIIS) during 1999. These were followed by the introduction of the MSCI global Islamic indices and the Global Gulf Cooperation Council (GCC) Islamic index in 2006. In 2015, a report by Thomson Reuters estimated the size of assets under management in Islamic funds worldwide to be US$60 billion, with a potential demand of US$185 billion.

Islamic Funds, such as Amana Mutual Funds, shun companies that charge interest on loans, that receive interest income, or that are in debt over a certain threshold as well as companies in the alcohol, gambling and pork industries (for more details about the screening criteria see Ghoul and Karam 2007). The Amana funds have boasted strong performance over the past fifteen years, partly thanks to avoiding the financial sector that was shattered during the 2008 financial crisis. However, during the recovery from the crisis their performance trailed the S&P 500.

Christian funds can be conveniently categorized as Catholic and Protestant funds. The Ave Maria funds are the best-known and largest family of Catholic mutual funds in the US, with about $1 billion in assets under management. Ave Maria Catholic Values, started in 2001, is the oldest of these. The six no-load Ave Maria funds invest in companies that are consistent with core pro-life, pro-family values of the Catholic Church. They cannot be involved in abortion, contraception, embryonic stem cell research, pornography, or contribute corporate funds to Planned Parenthood. The funds also shun companies that support alternative lifestyles such as including same-sex couples in employee-benefit plans or offering benefits to unmarried partners. Perhaps surprisingly, the Ave Maria funds do not screen out companies involved with the gambling or weapons industries (Gellman 2013).

TABLE 1
SELECTED PRIOR EMPIRICAL FINDINGS REGARDING FAITH-BASED FUNDS

Source	Fund(s)	Scope	Main conclusions (performance)
Abdelsalam, et al (2013)	Islamic, secular SRI	Global	Perform similar except at edges of efficiency frontier
Abdullah, Hassan & Mohammed (2007)	Islamic	Malaysia	Outperform during bear markets, underperform during bull markets
Ashraf (2013)	Islamic	Saudi Arabia	Underperform
BinMahfouz & Hassan (2012)	Islamic	Saudi Arabia	Perform as well
Boasson, Boasson & Cheng (2006)	Christian	US	When adjusted for risk, do not underperform
Beer, Estes & Deshayes (2014)	Islamic, Christian, secular SRI	US	Performance changed after Panic
Elfakhani, Hassan & Sidani (2007)	Islamic	Global	Perform as well
El Khamlichi, et al (2014)	Islamic	US	Underperform
Hassan et al (2010)	Islamic	Malaysia	Perform as well
Hayat & Kraeussl (2011)	Islamic	Global	Islamic equity funds underperform Islamic and conventional indices
Hoepner, et al (2009)	Islamic	Global	Perform well where there is a good number of Sharia-compliant assets
Kurtz & DiBartolomeo (2005)	Catholic	US	Perform as well
Lobe, Rößle & Walkshäusl (2012)	Islamic	Global	Perform as well
Lyn & Zychowicz (2010)	Faith-based	US	Mostly outperform S&P500 and secular SRI funds
Merdad, et al (2010)	Islamic	Saudi Arabia	Underperform during bull markets, outperform during bear markets
Areal, Cortez & Silva (2010)	Faith-based, secular SRI, Vice	US	Vice fund achieves higher mean return with higher volatility
Walkshäusl & Lobe (2012)	Islamic	Global	Performance dependent on that of energy and materials sectors

See also: Karim (2010), BinMahfouz & Hassan (2013); Donia & Marzban (2010); Girard & Hassan (2008), Hassan & Girard (2010); and, Rubio, Hassan & Merdad, (2012).

Representative of Protestant-based investing are the Praxis funds. Companies in which these funds invest have to meet six core values: respecting the dignity and value of all people, building a peaceful violence-free world; demonstrating a concern for justice, and respect for the environment. Shareholder advocacy is relied upon to support causes such as fair-trade, AIDS prevention, and opposition to predatory lending.

While the most obvious problem with faith-based funds might seem to be less than optimal diversification due to the screening of companies, in practice, this has not much impinged on portfolio selection. Other problems may be more significant. Faith-based funds tend to have a small size of assets under management, which increases their expense ratio. Islamic mutual funds in particular struggle with a lack of scale.

The young age of most funds results in a lack of a sufficient track record for statistical analysis. Faith-based funds tend to have a clear preference for small-cap companies since larger companies are more likely to be involved in objectionable activities (Ghoul 2012). Faith-based funds incur additional costs due to the need to constantly monitor companies for the purpose of ensuring compliance with the screening criteria. Islamic funds may be forced to invest in companies with less leverage than is optimal since the use of conventional debt is prohibited and currently the substitute shariah-compliant forms of financing transactions, such as Murabaha, are subject to double taxation in many countries. The possible reversal of a ruling on religious-compliance of some investment vehicles or contracts in Islamic funds is referred to as Shari'ah risk.

LITERATURE REVIEW

The recent rise in interest in socially responsible and faith-based investing faced a great deal of skepticism. For example, according to Entine (2003), "despite hyperbolic claims by its advocates, there is no serious research showing that the mix of conservative religious beliefs and liberal social notions yield a set of principles that result in superior financial or stock performance." While investors in faith-based funds would naturally be interested in financial performance, it must be pointed out that for many financial performance would be secondary to investing according to one's religious values. Under-performance of faith-based investments has been characterized as "the cost of discipleship." In Islamic investing circles this has been called "the piety premium" or "the cost of going to heaven" (Ghoul 2012).

The subject of comparing the performance of socially responsible mutual funds (in which faith-based funds are a subset) to conventional funds has been very trendy. Sjöström (2011) provides a review. Illustrative are Becchetti and Ciciretti (2009), who find that have similar risk-adjusted returns; and, Nofsinger and Varma (2014), who find that SRI mutual funds outperform conventional mutual funds during periods of market crisis and underperform in non-crisis periods. It appears safe to say that the evidence is mixed with regard to the proposition that socially responsible investment involves a sacrifice in performance.

Recently, the performance of specifically faith-based investing has come under investigation, Table 1 provides a summary of the emerging literature. Most studies find there is generally no sacrifice in performance. Given the predominate focus of this research on Islamic investing, further study of faith-based investing in general and of Christian investing in particular would be of interest.

METHODOLOGY AND ANALYSIS

Lists of 24 religious funds (Catholic, other Christian and Islamic) and 24 secular SRI funds in the United States with histories spanning 2007 to 2015 were compiled from various sources. The funds are identified in Table 2. These funds were matched against conventional funds, giving a total sample size of 96 funds, by the following criteria.

- Morningstar category (e.g., Large-cap Growth Funds).
- Not a specialty fund within the category.
- Sufficient history.
- Finally, the first fund that is close to the size of the religious or secular SRI fund and is not already in the sample.

Table 3 presents some statistics concerning the faith-based and secular SRI funds and their peers. The religious funds and their matching funds are of course similar in size (since they were explicitly matched on that criterion), but they are small compared to secular SRI funds and their matching funds, and especially small compared to the Vanguard 500 Index Fund. The religious funds, secular SRI funds and the two sets of matching funds are also close on beta, expense ratio, front-end load, minimum initial investment and annual turnover.

TABLE 2
FAITH-BASED AND SECULAR SRI FUNDS INCLUDED IN THIS STUDY

Thrivent Small Cap Growth [Lutheran]	Alger Green A
Thrivent Mid Cap Growth [Lutheran]	American Trust Allegiance
Thrivent Large Cap Growth [Lutheran]	Appleseed
Thrivent Aggr Allocatn [Lutharan]	Ariel
Thrivent Moderately-Aggr Allocatn [Lutheran]	Ariel Appreciation Investor
Praxis Growth Index [Mennonite]	Ariel Focus
Praxis Value Index A [Mennonite]	Calvert Capital Accumulation A
Timothy Plan Aggr Growth [Christian]	Calvert Global Value A
Timothy Plan Cons Growth [Christian]	Calvert Small Cap A
Timothy Plan Strat Growth [Christian]	Calvert US Large Cap Core Rspnsb Index A
Timothy Plan Large/Mid Cap Growth [Christian]	Domini Social Equity Inv
Timothy Plan Large/Mid Cap Value [Christian]	Dreyfus Third Century Z
New Covenant Growth [Presbyterian]	Gabelli SRI A
Epiphany FFV [Roman Catholic]	Green Century Balanced
LKCM Aquinas Growth [Roman Catholic]	Green Century Equity
LKCM Aquinas Value [Roman Catholic]	Integrity Growth & Income A
Ave Maria Growth [Roman Catholic]	Neuberger Berman Socially Rspnsb Inv
GuideStone Growth Equity [Southern Baptist]	Parnassus
GuideStone Growth Allocatn [Southern Baptist]	Parnassus Core Equity Investor
GuideStone Small Cap Equity [Southern Baptist]	Parnassus Mid-Cap
GuideStone Aggr Allocatn [Southern Baptist]	Pax World Balanced Individual Inv
Amana Growth [Islamic]	Pax World Growth Individual Inv
Azzad Ethical [Islamic]	Sentinel Sustainable Core Opp A
Iman [Islamic]	Vanguard FTSE Social Index Inv

Because of the convoluting impact of fund objective on return, and possible convoluting impacts of other fund characteristics, the 24 faith-based funds, 24 secular SRI funds and their peers were treated as one large sample for the purpose of regression analysis. In this regression, return is treated as the dependent variable, with independent variables denoting those funds guided by religious and by secular SRI investment criteria as well as other characteristics of the fund. The results of this regression are reported in Table 4. This regression includes the independent variables of interest, fund beta, and other significant independent variables. The results are robust with respect to various perturbations of the set of independent variables, and the exclusion of insignificant independent variables.

In terms of annualized rate of return, the faith-based funds underperform their matching conventional counterpart by about one percentage point. The period chosen for this study includes a complete cycle, in order to examine return over both a bear and a bull market. The t-statistic for the difference of means with paired observations is -1.86, which is larger than the critical t for a one-tailed test at the 5 percent confidence level.

Much of the difference between the faith-based funds and their peers in return appears to result from Asset Allocation religious funds. Exclusive of the five Asset Allocations religious funds, the remaining 19 religious funds still underperformed their peers in return; but, only by 0.5 percentage point. The t-statistic for this difference of means is not statistically significant.

TABLE 3
SUMMARY STATISTIC OF THE FUNDS USED IN THIS STUDY

	Vanguard 500 Index	24 Religious Funds	24 Matching Funds	24 Social Responsibility Funds	24 Matching Funds
Ave Return (%) (6/30/07 to 6/30/15)	6.02	4.85	5.82	5.97	5.53
Ave Beta (same time period)	1.00	0.94	0.96	0.95	0.95
Ave Volatility (annualized)	0.22	0.22	0.23	0.22	0.22
Ave Management Expense Ratio (%)	0.17	1.35	1.35	1.14	1.29
Ave max entry fee/front-end load (%)	0.00	2.71	2.23	1.67	2.75
Ave fund size ($Millions)	208,880	483	479	1,077	1,142
Ave min Initial investment ($)	3,000	1,396	1,354	1,854	1,396
Ave annual turnover (%)	3.00	60.02	53.22	41.31	65.10

TABLE 4
REGRESSION ANALYSIS OF ANNUAL RETURNS, 6/30/2007-6/30/2015,
24 FAITH-BASED, 24 SECULAR SRI AND 48 MATCHING CONVENTIONAL FUNDS

	Coefficient	Standard Error	t-statistic
Constant	3.64	1.31	2.78
Faith-based	-0.55	0.42	-1.33
Secular SRI	0.02	0.42	0.05
Ln(Size)	0.29	0.11	2.55
Allocation Funds [1]	-3.34	0.60	-5.56
Beta	0.92	1.20	0.77
R-square	36.4%		

[1] Aggressive = 1, Moderate = 2/3, Conservative = 1/3

Neither faith-based nor secular SRI funds underperform the market when size of the fund and the inclination of the fund toward asset allocation are controlled. To be sure, the point estimate of the impact of religion on fund performance is negative, but that estimate falls short of conventional standards for statistical significance. Beta, a measure of systematic risk, enters the model with the expected sign but is insignificant. To investigate whether this insignificant result was due to problems in measuring beta, beta was re-estimated with a two-day window (the current and prior trading day), with no impact on the regression. Fund volatility was substituted for beta, with no change in the results. Of more concern to those interested in ethical investing, whether secular or informed by faith, is the impact of the size of the fund on performance. Smaller funds delivered lower returns, and this result was significant. As was observed in Table 3, faith-based funds are, on average, relatively small.

CONCLUSIONS

While modern portfolio theory may characterize faith-based investing as less efficient, it does not appear that investors in such funds suffer degraded performance as compared to matched conventional funds. As a practical matter, the challenges to faith-based funds are the same as the challenges to secular SRI and conventional funds, such as achieving available economies of scale. Restrictions peculiar to the faith-based funds, such as asset choice, have not themselves negatively impacted performance. With the social media revolution, mutual funds should be able to connect with investors interested in faith-based investments across the world, thus reducing their small-size handicap.

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