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ECONOMIC CONDITIONS, FLIGHT-TO-QUALITY & MUTUAL FUND FLOW

Collectively, mutual fund investors are major players in capital markets, with assets of 23 trillion USD worldwide at year-end 2009.[1] Canadian mutual funds manage over 600 billion CAD, which represents 30% of Canadian financial wealth.[2] At the fund level, research has shown that investor actions do not always have rational explanations. For example, mutual fund investors chase returns, relying on past performance as imperfect predictors of future returns and react to non-informative name changes and advertising campaigns.[3] In this article, we study the aggregate allocation decisions of Canadian mutual fund investors across broad asset classes. Our goal is to assess the collective behavior of these, typically small, investors. Much as diversification minimizes the effects of idiosyncratic factors, aggregate investor allocation decisions may be quite different from fund-level evidence. Our focus on aggregate asset allocation decisions leads to new insights about the collective behavior of mutual fund investors.

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Starting with monthly flow data for individual Canadian mutual funds over the period January 1991 through October 2005, we compute aggregate monthly allocations for seven major fund categories: Money Market; Bond; Balanced; Dividend and Income; Canadian Equity, U.S. Equity; and Foreign Equity. These categories individually account for at least 10% of overall monthly flow, on average, although each series shows considerable time-series variation. We then relate allocations to common proxies for economic conditions: the term spread (TERM), the default spread (DEF), the change in the short-term interest rate (ΔTB), the Treasury-Eurodollar spread (TED), and volatility in the stock and bond markets (TSV and TBV).[4]

We find that, in aggregate, fund investors alter the riskiness of their portfolios in response to shifting economic conditions, increasing risk as the economy improves and reducing risk in anticipation of economic downturns. Thus, when the economy is expected to perform favorably (i.e. TERM is high, DEF is low, ΔTB is low, or TED is low), investors direct flow away from money market funds and towards equity funds. For example, a one standard deviation increase in the term spread (1.13%) results in an 84% increase in allocations to Canadian equity funds and a 74% decrease in allocations to money market funds, relative to the previous month. The coefficients on DEF and ΔTB paint a broadly similar picture. Moreover, the sensitivity to TERM, DEF and ΔTB is, for the most part, lower for balanced or dividend/income funds than for equity funds; thus, flow to the riskiest assets is most sensitive to economic conditions. These results on the relation between aggregate flow and economic conditions are, to our knowledge, new.

In sum, our results point to rational motives behind the aggregate asset allocation decisions of mutual fund investors. Often derided as noise traders, small investors pay attention to economic signals while determining allocations. In general, fund managers are precluded from reallocating across asset classes as economic conditions change. Our results suggest that investors recognize this limitation and undertake such 'market-timing' type reallocations themselves. Further, the direction of the relation between aggregate allocations and the proxies for economic conditions suggests that the collective actions of fund investors do not disrupt price formation. Rather, they likely contribute to the well-documented relation between these proxy variables and asset prices (e.g. see Fama and French, 1989).

Despite the apparently rational foundations of these asset allocation decisions, we find limited evidence of associated wealth benefits. Comparing a buy-and-hold equity portfolio and a 'flight-to-quality' portfolio which switches between money market and equity funds based on the term spread, we find that both average return and risk (standard deviation) are lower for the flight-to-quality portfolio. On a risk-adjusted (Sharpe ratio) basis, the buy-and-hold portfolio marginally outperforms the flight-to-quality portfolio.

BIOGRAPHY

DR. **BLAKE PHILLIPS** received a Bachelor of Science from the University of British Columbia in 1996, a Master of Forestry and Master of Business Administration from the University of Alberta in 2004 and a Ph.D. in Finance also from the University of Alberta in 2009. Prior to commencing his doctoral studies, Blake was a Director and Managing Partner of Spectrum Resource Group Inc., a forestry consulting firm headquartered in British Columbia. Blake is currently an Assistant Professor of Finance at the University of Waterloo, School of Accounting and Finance and a Regular Member of the Waterloo Research Institute in Insurance, Securities and Quantitative Finance. Blake's research focuses on stock market efficiency, empirical asset pricing and mutual funds.

TESTIMONIAL

I RECEIVED THE **CSIRF** FUNDING IN THE FINAL YEAR OF MY Ph.D. AT THE UNIVERSITY OF ALBERTA. Ph.D. students often need to take on research assistantships or lecturer jobs to meet their financial needs. The CSIRF scholarship allowed me to focus my time on research, significantly increasing my productivity in my final year and contributing to my placement at the University of Waterloo.

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[1] Investment Company Institute, Trends in mutual fund investing, 2010.

[2] The Investment Funds Institute of Canada, 2011.

[3] See Gruber (1996), Sirri and Tufano (1998) and Lynch and Musto (2003) for evidence of return chasing. Jain and Wu (2000) and Cooper et al. (2005) report that investors direct flow at funds which advertise more and funds which undergo name changes to reflect current market trends.

[4] Among other papers in this line of research, see Fama and Schwert (1977), Fama and French (1989), Schwert (1989) and Chen (1991).