



ELSEVIER

Contents lists available at ScienceDirect

Journal of Financial Markets

journal homepage: www.elsevier.com/locate/finmar

Regular article

Short selling and the pricing of closed-end funds[☆]Gordon J. Alexander^{a,*}, Mark A. Peterson^b^a Carlson School of Management, University of Minnesota, 321 19th Avenue South, Minneapolis, MN 55455, USA^b College of Business, Southern Illinois University, Mailcode 4626, Carbondale, IL 62901-4626, USA

ARTICLE INFO

Article history:

Received 30 November 2015

Received in revised form

6 August 2016

Accepted 6 August 2016

JEL classification:

G11

G12

G14

Keywords:

Closed-end funds

Short selling

ABSTRACT

We analyze how short selling affects the pricing of U.S. closed-end funds over the 2010–2015 time period. Significant short selling is found in both premium and discount funds and increases as premiums rise. Funds with greater short selling experience significant declines in premiums over the next five days. Our analysis speaks to theories of closed-end fund pricing and is consistent with the neoclassical theory of closed-end fund pricing as described by Ross (2002), Berk and Stanton (2007), and Cherkes, Sagi, and Stanton (2009).

© 2016 Elsevier B.V. All rights reserved.

1. Introduction

The pricing of closed-end funds (CEFs) is an important topic in finance because this is one case where a company's fundamentals are directly observable (Ross, 2002) and accurately valued.¹ CEFs have predominantly been priced at a discount to net asset value (NAV), an observation that seemingly runs counter to the law of one price. Malkiel (1977) examines a number of possible explanations for

[☆]We appreciate the comments by the editor, the referee, Louis Gagnon, Jason Greene, Lawrence Kryzanowski, David Nanigian, David Rakowski, Wanli Zhao, and participants at the 2011 FMA, 2013 FMA Europe, and 2013 MFA meetings.

* Corresponding author: Gordon J. Alexander, John Spooner Chair in Investment Management and Professor of Finance, Carlson School of Management University of Minnesota 321 19th Avenue South Minneapolis, MN 55455 Phone: 612-624-8598
E-mail addresses: gjalex@umn.edu (G.J. Alexander), map1@business.siu.edu (M.A. Peterson).

¹ Brickley and Schallheim (1985) show that upon open-ending, the prices of CEFs converge toward their NAV, implying NAVs are accurate.

CEF discounts and concludes that while the structure of discounts is can be partially explained on the basis of theoretical principles, the size of the discounts is far larger than theory predicts.² Accordingly, CEF pricing has been described as a puzzle by Lee, Shleifer, and Thaler (1991).

More recent theory suggests that in equilibrium, some CEFs will trade at a discount to NAV while others will trade at a premium.³ Kumar and Noronha (1992), Gemmill and Thomas (2002), Ross (2002), Berk and Stanton (2007), and Cherkes, Sagi, and Stanton (2009) provide models that show how fund expenses can push CEF prices toward a discount. However, some of these authors have also argued that there are offsetting forces that can push CEF prices toward a premium. These offsetting forces involve security selection ability (Berk and Stanton, 2007) and asset liquidity (Cherkes, Sagi, and Stanton, 2009). The net result is that, in equilibrium, some CEFs will sell at a discount while others will sell at a premium. Specifically, the size of the discount will be smaller or possibly even negative (i.e., the CEF will sell at a premium) for those CEFs that either (1) hold securities whose arbitrage costs are lower, or (2) hold more illiquid assets, or (3) are managed by people with greater security selection ability.⁴ Hence, in an efficient market there are offsetting factors that can lead to one CEF consistently selling at a price that is below its NAV while another CEF consistently sells at a price above its NAV. We refer to these theories collectively as the neoclassical theory of CEF pricing (Ross, 2002).

The behavioral theory of CEF pricing relies on an alternative explanation. As expounded by Lee, Shleifer, and Thaler (1991), fluctuations in prices relative to NAV are driven by changes in investor sentiment. Hence, it is not surprising that the average equity CEF discount (measured as price relative to NAV) is a component in the Baker-Wurgler (2006, 2007) index of investor sentiment.

In this paper, we examine whether short sellers affect CEF premiums, where the premium is defined hereafter as $(\text{Price} - \text{NAV})/\text{NAV}$.⁵ Recent studies such as Boehmer, Jones, and Zhang (2008) and Diether, Lee, and Werner (2009) conclude that short sellers of individual stocks (CEFs were excluded) tend to trade on short-term overreactions of their market prices relative to their intrinsic values. Because the long returns on these trades tend to be significantly negative, these short sellers typically earned significantly positive abnormal returns, leading to the view that they are “informed.” Given that both fundamental values and prices of CEFs are known, it is of interest to study whether short sellers of CEFs are similarly informed.

ex ante, one might believe that short selling of CEFs occurs infrequently for several reasons. First, D’Avolio (2002) suggests that about 27% of all CEFs in the CRSP database are impossible to short. Second, as noted earlier, the majority of CEFs trade at a discount to NAV and may therefore not be good candidates for shorting, assuming the NAV represents the fundamental value of the CEF. Third, because municipal bond CEFs pay tax-free dividends that short sellers cannot replicate, it is widely assumed that they are subject to less (or even no) short selling than other CEFs (e.g., Pontiff, 1996, p. 1149). Hence, it is of interest to see if: (1) short selling activity in CEFs is similar to short selling in individual stocks, (2) the degree of short selling is related to a CEF’s premium, and (3) the degree of short selling differs notably between equity, taxable bond, and municipal bond CEFs.

An examination of short selling of CEFs can also provide insight into theories of CEF pricing because these theories have different explanations for the prevalence of short selling. Classical (or traditional) theory suggests that short selling is likely to occur only in a CEF that is trading at a premium and that also suggests short selling will increase with an increase in the CEF’s premium. Furthermore, short selling should occur more often for CEFs that are easier to arbitrage (Pontiff, 1996). Accordingly, after controlling for certain factors such as liquidity, it should be easier to short equity CEFs compared to taxable bond CEFs which, in turn, should be easier to short than municipal bond CEFs.

Neoclassical theory suggests that fundamentals (such as fund expenses and the security selection ability of the portfolio manager) are the cause for CEFs to have equilibrium prices that can be either

² However, Malkiel (2011, pp. 410–413) argues more recently that CEF discounts have become narrower because of increased market efficiency.

³ See Cherkes (2012) for an extensive review of theories of CEF pricing.

⁴ CEF discounts will also be smaller when some combination of (1), (2), and (3) is present.

⁵ Note that with this terminology, a CEF selling at a discount to NAV will have a negative premium. Accordingly, “premiums” will hereafter refer to both premiums and discounts, with the distinction being that the former have positive values and the latter have negative values.

Download English Version:

<https://daneshyari.com/en/article/5100688>

Download Persian Version:

<https://daneshyari.com/article/5100688>

[Daneshyari.com](https://daneshyari.com)