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Convenience Yield and Liquidity Risk in the Global Closed-End Fund

(Job Market Paper)

The global closed-end fund (CEF), usually labeled by country or region name, is traded domestically based on an underlying investment portfolio constructed by offshore foreign financial assets. As observed empirically, the global CEF is traded at a different price from the portfolio net asset value (NAV), where the difference is usually known as the CEF discount. To understand the correlation between the CEF discount and the NAV return, this paper estimates the convenience yield using the two-factor dynamic state space model, and constructs liquidity risk measures combining Datar, Naik, and Radcliffe (1998) and Amihud (2002). Empirical results find that the CEF discount is negatively correlated with the NAV return but positively correlated with the liquidity risk, which is consistent with Chan, Jain and Xia (2008).

The Closed-End Fund on the Open-End Announcement

(with Paolo Guasoni)

An empirical fact is that the closed-end fund (CEF) discount changes abruptly on the open-end announcement date. This paper proposes a theoretical explanation using the representative agent portfolio optimization model with logarithmic utility. Before the announcement, the CEF discount dynamic follows a mean-reverting process. After the announcement, the discount dynamic is modified to converge to zero on the open-end date, which changes the budget constraint of the portfolio optimization. Assuming that the optimal portfolio holding is unaffected by the announcement, the discount change on that date can be solved numerically. Empirical results also provide positive supports for this explanation proposal.

An Equilibrium Asset Pricing Model for the Global Closed-End Fund

(with Jerome Detemple)

This paper sets up an equilibrium asset pricing model for the global closed-end fund (CEF), which is traded domestically based on an underlying portfolio of foreign financial assets. Assuming no communication between the net asset value (NAV) country and the CEF country, the equilibrium NAV and CEF price are characterized separately in closed forms. The equilibrium NAV only depends on the current dividend value and the subjective discount factor. However, the equilibrium CEF price also depends on future dividend dynamics till the open-end date. Furthermore, comparative sensitivity analyses and simulations present different mechanisms to generate the CEF discount. In conclusion, this paper finds that there are three important factors to account for the CEF puzzle: (1) The equilibrium interest rate is partially exogenous relative to the CEF; (2) The NAV portfolio can not perfectly hedged by the market assets space; (3) There are a fixed number of CEF shares outstanding in the market.