CHAPTER ONE

Introduction

This dissertation studies public information events on the valuation of closed-end funds, specifically including closed-end domestic funds in Taiwan as well as closed-end country funds listed on the New York Stock Exchange. Closed-end funds are valued in two parallel ways: the fundamental value (often called net asset value, or NAV) and the market value (often called fund share price, or FSP). The NAV of a fund reflects the performance of the fund manager, while the FSP of a fund represents investors' subjective evaluation of the fund's performance. It is well known that NAV and FSP are valued in the identical market for closed-end domestic funds. However, they are valued in two different markets for closed-end country funds. Specifically, for country funds, NAVs are determined in the foreign market and FSPs are priced in the local market, e.g., in this dissertation the FSP of the Taiwan fund is priced in the New York Stock Exchange and the NAV of the Taiwan fund is valued in the Taiwan Stock Exchange.

In this dissertation we try to reveal the information effects on both closed-end domestic funds and closed-end country funds. Two kinds of information are employed for two subjects, which are dramatic political information in Taiwan and headlines shown on the front page of *The New York Times*. Specifically, this dissertation encompasses two main subjects. First, for the information effects on the closed-end domestic funds, we intend to resolve the theory of investors' sentiment (Zweig, 1973, Weiss, 1989 and Lee, Shleifer and Thaler, 1991) for the information sets under an identical market. Secondly, for the information effects on the closed-end country funds, aside from further resolving the theory of investors' sentiment for the information sets under two different entities, we try to resolve the categorized news effects based on the investors' sentiment.

Contrary to the theory of investors' sentiment, Dimson and Minio-Kozerski (1999) find that there exactly exists a difference of value between NAV and FSP. They point out that many studies have attempted to explain the prevalence of the discount using the theory of market efficiency. However, none have been able to provide a fully satisfactory explanation.

In the first subject of this dissertation we use a sample of closed-end domestic funds from Taiwan, which is an emerging market, to examine the anomaly between investors' sentiment and market efficiency. Past studies show that there exist anomalous empirical results in financial returns which can be explained by investors' sentiments such as investors' under-reaction or overreaction to news events (Lee and Shleifer, 1990, Lee, Shleifer, and Thaler, 1991). The main problem facing financial economists is that investors' sentiments are unobservable. As a result, financial economists usually make some assumptions about the properties of fundamentals before testing market efficiency (Klibanoff, Lamont, and Wizman, 1998).

There are two approaches to explain the behavior of a closed-end fund's discount. The first one emphasizes market friction and market segmentation. The second one emphasizes noise traders and investors' sentiment. While the market segmentation hypothesis is usually used to explain the empirical results from closed-end country funds, the investors' sentiment hypothesis is used to explain the empirical results for closed-end country funds as well as for domestic closed-end funds.

In the subject of closed-end domestic funds, we use closed-end funds from Taiwan to test the information effects on FSP and NAV. The underlying theories we use to explain the behavior of closed-end funds are market efficiency and investors' sentiment. In juxtaposition to the previous literature, the research design of this paper does not use fund's discount to perform empirical tests. Rather, we use FSP and NAV simultaneously to test the theories. Since the FSP mainly reflects investors' behavior and NAV represents the market's assessment of the performance of fund managers, we use both the FSP and NAV to test for compliance with the assumed effects of market efficiency and investors' sentiment, especially for the information sets under an identical market.

Like many other events affecting stock markets, political risk is an important input into market valuations (Gemmill, 1992, Chan, Chui, and Kwok, 2001, Kim et al., 2001, Grundy et al., 2002). We invoke unexpected political events across the Taiwan Strait as information events to test the news impact on FSP and NAV. Taiwan's stock market has been affected by salient political events that have a major impact on both the fundamental values and investors' sentiment in closed-end fund markets. From 1990 onwards, Taiwan has been repeatedly threatened by military operations from the PRC (People's Republic of China). We will use such threats that occurred especially during presidential elections in Taiwan from 1993 to 2000. These political events are of undoubted prominence and are considered to be major public informational events in Taiwan. We expect that they will help us understand the reaction of FSP and NAV to information shocks. To resolve the possible conflicting interpretations between market efficiency and investors' sentiment arguments, we use the data of 21 closed-end funds and four major political events in Taiwan.

Under the theoretical model of market efficiency, we start by assuming that the information shock is consistent with market efficiency. Our empirical results reveal that, even though this assumption is corroborated by three out of four events, the remaining one event in four induces changes which are inconsistent with market efficiency. This supports the theory of the prevailing of investors' sentiment. The results also show that the return on FSP and the return on NAV move in the same direction. The impact of information shocks on the return of fund share price and return of NAV have mostly the same direction.

Although the above results from domestic funds showing there exists investors' sentiment, however they are the results for the information sets under the identical market. We further intend to resolve what the information effects are on the valuation of closed-end country funds, where FSP and NAV are valued in two different markets. Hence, the second subject of this dissertation is to resolve whether salient country-specific news affects investors' sentiment around the Asian financial crisis, using six Asian country funds listed on the New York Stock Exchange.

An important question concerning the valuation of closed-end country funds is how fund share price reacts to changes in its fundamental value. Previous literature focuses mainly on the speed of adjustments of fund share price to its net asset values (Lee et al, 1991, Hardouvelis et al., 1994, Bodurtha, Kim and Lee, 1995). Bodurtha, Kim, and Lee (1995) show that country fund prices do not move as much as their fundamental values following movements in the host country's stock market, but they are too sensitive to movements of small-capitalization U.S. stocks.

Klibanoff et al. (1998) use 36 country-funds from 1986 through 1994 and show that country fund prices respond more than fundamental values when salient news appeared in *The New York Times*. However, their results are based on the total number of news reports and they did not consider different categories of news reports on the reaction of fund share price to net asset value. An interesting question concerning the impact of salient information arrivals on country fund prices is how news reports affect investors' reactions around major financial shocks. We contend that, by examining the relationship between country fund prices and net asset values around the Asian financial crisis period, we are able to offer additional evidence on this issue.

In this paper, we use six Asian closed-end country funds listed on the New York Stock Exchange as our sample and investigate investors' reaction to prominent news around the Asian financial crisis. Our sample period is from January 1995 to December 2002, which encompass the time before, during, and after the Asian financial crisis period. Following Klibanoff et al. (1998), we consider news reports for the six countries that appeared on the headline of the front page of *The New York Times* as salient news. To distinguish the impact of different categories of news reports, we also separate news items into different categories. We categorize news reports into political news, economic news, and general news according to their contents. Following Chan et al. (2001), we also separate the news reports into positive-tone news, neutral news, and negative-tone news.

Regressing by the specification of panel data, we find that when the return of NAV rises by one in a given week, the return of FSP responds only by about 0.7. In regular weeks, the returns of fund share prices react less to the changes in returns of the net asset value, which are consistent with the results of Klibanoff et al. (1998). In weeks with salient news appearing on the front page of *The New York Times*, our results show that return of FSP reacts more. These results are consistent with the hypothesis that news events lead some investors to react more quickly. We also find that news effects are more significant before and during the crisis period and economic news affects individual investors' reactions more significantly. Furthermore, we find the financial crisis itself is the lower bound for the negative news. This result suggests that during a panic period negative news do have a lower bound, the crisis itself, whereas in a regular period negative news has a significant impact.

As to the reaction of volume to news, the results show that news effect is significant in full sample period. For the reaction of volume to categorized news, economic news is significant in full sample period.

In sum, the results from either domestic funds or country funds all show that news events/information do play a role in individual investors' sentiment. The phenomenon is more conspicuous during the financial crisis period.

The remainder of this dissertation is organized as follows. Chapter Two studies the impact of political information on fundamental value and market value and offers evidence from twenty-one of Taiwan's closed-end domestic funds. Chapter Three studies news effects on the valuation of closed-end country funds and presents evidence from six Asian county funds listed on the New York Stock Exchange around the time of the Asian financial crisis. In Chapter Four we summarize the results of the two studies and conclude this dissertation.