

# **U.S. Investors' Response to Philippine Capital Market Liberalization: Evidence from the First Philippine Fund\***

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## **INTRODUCTION**

When countries restrict international investment, what may result are segmented markets where assets are valued differently by domestic and foreign investors. The degree to which restrictions act as barriers depends on the type of investment activity these countries restrict and whether the restrictions are binding. Specifically, this study investigates how U.S. investors view Philippine barriers to international investments and the recent steps taken by the Philippine government in liberalizing these restrictions. In particular, we use data on the First Philippine Fund (FPF), a closed-end country fund traded at the New York Stock Exchange, to provide evidence on whether existing international investment restrictions have effectively segmented the Philippine capital market from the international capital markets. We test whether restrictions on international investments in the Philippines are effective and whether the announced relaxation of these restrictions is deemed important by U.S. investors. This we do by examining if announcements of changes in the investment restrictions in the Philippines are related to changes in the premiums and discounts of the FPF closed-end country fund.

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To investigate this issue, we look at the effect of a series of announced investment restriction liberalizations on foreign investment. We categorize these announcements into three groups: (a) announcements related to a major relaxation of foreign equity participation limits via the Foreign Investment Act of 1991 (FIA), (b) announcements related to the relaxation of foreign exchange restrictions, and (c) announcements related to the liberalization of entry of foreign banks to operate in the Philippines which is not covered by the FIA. Our findings indicate that the liberalization of investment restrictions that limit foreign equity investment, in areas other than the financial services sector, are viewed significantly by the market. Otherwise, liberalizing the foreign exchange market and barriers to entry of foreign banks are viewed as insignificant events. In addition, we do not find evidence that these liberalization announcements are anticipated by market participants.

The remainder of the paper proceeds as follows. In Section 2 we present our theoretical framework and review of previous research reporting on empirical evidence on the relationship between foreign investment liberalization and premiums/discounts on closed-end country funds. Section 3 presents a discussion of the characteristics of our sample, sample formulation, data collection procedure and adjustments to the initial sample. Section 4 presents our research methodology, discussing how we identified the events and the tests we used to validate our hypotheses. We present our conclusions in Section 5.

## **THEORETICAL FRAMEWORK AND PREVIOUS EMPIRICAL STUDIES**

One of the country funds designed for overseas investors wishing to gain access into the Philippine capital market is the First Philippine Fund (FPF). The FPF is the largest of five closed-end country funds investing in Philippine securities and the only one listed on the New York Stock Exchange. Launched on November 8, 1989, this nondiversified, publicly-traded management investment company invests primarily in equity securities of Philippine companies.<sup>1</sup> Due to restrictions limiting foreign equity participation to 40 percent in most economic areas, many companies choose to classify their shares into two categories: "A" shares

and "B" shares.<sup>2</sup> "A" shares are reserved for Filipino nationals, while "B" shares can be purchased by both foreign and local investors.<sup>3</sup> Other than this ownership restriction, there are no distinctions between the rights, preferences and limitations of the two classes of shares. However, the FPF is the only country fund permitted by the Philippine government to invest in "A" shares of domestic companies that are otherwise available only to Philippine nationals. This feature makes the FPF an easily accessible alternative to direct investment in the restricted Philippine capital market.

Similar to their domestic counterparts, closed-end foreign country funds can trade at premiums or discounts over their Net Asset Values (NAVs). However, in contrast to domestic closed-end funds, the foreign country fund's NAV is not determined in the same market as its share price but by the prices of the underlying securities traded in the foreign market. Given that country funds and their underlying assets are close substitutes, then, if capital markets are integrated internationally, a closed-end country fund's shares and its underlying assets should have similar risk. However, Eun and Janakiramanan (1986) and Hietala (1989) argue that barriers to international investment can cause the expected returns on assets of equal risk to differ across countries. Based on these models, nonzero country fund premiums imply some market segmentation.

Eun and Janakiramanan (1986) and Hietala (1989) assume quantitative limits on cross-ownership of assets as the form of international investment barrier. In their models, a foreign country has two classes of shares: (a) restricted shares that only the foreign country's nationals can buy and (b) unrestricted shares that can be purchased by both the foreign country's nationals and overseas investors. The foreign country's government imposes limits on the fraction of the unrestricted shares. They show that when these limits are binding, the unrestricted shares sell at a premium relative to the restricted shares with the premium depending on the covariance matrix of returns and investor preferences. The assets underlying the closed-end country funds are analogous to the restricted shares, while the country funds' shares themselves can be considered as the unrestricted shares. Thus, these models suggest that imposition of binding quantitative restrictions will increase the price-to-NAV ratio of the fund investing in that country above the level prevailing in the absence of such restrictions.<sup>4</sup>

An intuitive explanation of the preceding inferences is as follows. Suppose that a particular country legally prohibits foreign investors from directly purchasing its local equity securities. Assume that the only means by which a foreign investor can gain access to this country's equity market is through a closed-end fund, which is allowed to invest in the local securities. This fund will, most likely, have value to diversification-minded foreign investors and possibly sell at a premium over its NAV.<sup>5</sup> Therefore, when the restrictions are relaxed and direct purchase of the securities underlying the fund becomes easier, the fund is likely to have lesser value for the foreign investor. Consequently, the demand for the fund's shares decreases and thus the fund's shares are likely to sell at a lesser premium than before. At the same time, it is possible that foreign investors shift their capital from the country fund to direct purchases of the host country's equities as a result of liberalization. This increases the demand for the host country's equities, which in turn increases the NAV of the country fund. This reinforces the effect of reducing the premium or increasing the discount on the country fund.<sup>6</sup>

In summary, the preceding models imply that the price-to-NAV ratios of country funds can be affected by barriers to international investments if these restrictions are effective. This allows us to test whether changes in investment restrictions are associated with changes in the country fund's premiums or discounts. In particular, the preceding models suggest that, *ceteris paribus*, an announcement of a tightening of existing barriers increases the premium of or reduces the discount on a closed-end country fund investing in a country if this country's international investment restrictions are effective, or an announcement of a liberalization of the restrictions reduces the premium of, or increases the discount on, the fund. Tests of these hypotheses do not necessitate an underlying asset pricing model nor do they require measures of the effectiveness of the barriers to international investments. This is because when international capital markets are fully integrated, the shares of a closed-end country fund and its underlying assets should have similar risk. Consequently the fund's share price should be priced like domestic funds.

Using this theoretical framework, Bonser-Neal, Brauer, Neal and

Wheatley (1990) examine whether a relation exists between announcements of changes in investment restrictions and changes in closed-end country funds' premiums and discounts using weekly data from May 1981 to January 1989 for five funds trading in New York. For four country funds, they find in their sample a significant decrease in the fund's premiums (or increase in discounts) either in anticipation of or during the three weeks surrounding the announcement of a liberalization of investment restrictions. Overall, their results indicate that changes in country fund premiums are sensitive to announcements of changes in foreign country regulations that restrict investments. They find that across all country funds an announcement of a relaxation of investment restrictions is significantly associated with a 6.8 percent decline in the price-net asset value ratio during the event period. This suggests that government-imposed barriers to international investments have been effective in segmenting international capital markets. This is because announced changes in international investment restrictions, on average, would have had no impact on fund premiums if the restrictions had not been effective.

Although not conclusive, there is some evidence that country funds that invest in markets with difficult access have relatively high premiums. For example, Bonser-Neal et al. (1990) find that closed-end country funds investing in markets which restrict foreign access have traded on average at premiums while funds investing in the less restricted markets have traded on average at discounts. However, they doubt if the relationship between the severity of barriers to international investments and the level of a country fund's premium is monotonic since some funds investing in countries which impose restrictions on foreign investment have traded on average at discounts. Likewise, Bodurtha, Kim and Lee (1995) find in their sample that, while most country funds trade at an average discount, some funds that operate in countries which have very strict foreign ownership restrictions have traded at average premiums. Moreover, they find that funds investing in securities of countries with greater foreign ownership restrictions tend to have higher premiums or smaller discounts. However, they find that some funds investing in countries with strict foreign ownership restrictions, including the Philippines, exhibit discounts on average.

We would like to emphasize at the outset that the focus of this study is only on how regulatory changes in Philippine international

investment restrictions have affected the premiums and discounts of the FPF closed-end country fund.<sup>7</sup> This paper does not seek to explain why the FPF closed-end country fund trades at a premium or discount nor does it investigate the determinants of this fund's premium or discount and the extent of international diversification benefits that the fund offers. Readers are referred to the studies of Chang, Eun and Kolodny (1995), Bodurtha et al. (1995), Hardouvelis, La Porta and Wizman (1994), Johnson, Schneeweis and Dinning (1993), and Diwan, Errunza and Senbet (1993) as they address these issues.

### DATA DESCRIPTION AND SAMPLE CHARACTERISTICS

The initial sample comprises weekly closing prices and NAVs of the FPF covering the period November 24, 1989 to December 29, 1995.<sup>8</sup> Both fund share price and NAV are reported in U.S. dollars and are collected from *The Wall Street Journal*. Data on the amount of dividends and capital gains distributions, including the announcement and ex-dividend dates, were obtained from *Standard & Poors NYSE Stock Reports*. Like other closed-end country funds, the FPF's NAV is valued in local currency as of Friday's close in the foreign country and translated into U.S. dollars using the exchange rate in effect at that time. The fund's weekly (percentage) premiums over the net asset value are constructed as:

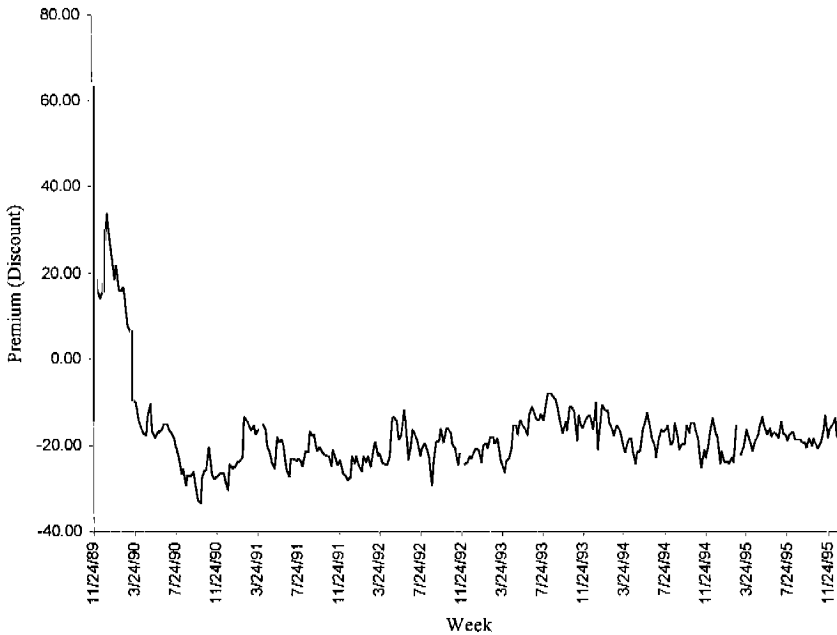
$$PD_t = \left[ \frac{SP_t - NAV_t}{NAV_t} \right] \times 100$$

where  $PD_t$  = premium (discount) of the fund at the end of week  $t$   
 $SP_t$  = stock price of the fund at end of week  $t$   
 $NAV_t$  = net asset value of the fund at end of week  $t$

The reported fund prices and net asset values are only approximately synchronous because a difference of 17 hours exist between the Philippine stock exchange close and New York's close.<sup>9</sup>

Figure 1 plots the fund's premium over the initial sample period.<sup>10</sup> The plot shows that during the first four months after launch (from November 24, 1989 to March 23, 1990), the FPF was trading at a premium after which the fund was and has since been selling at a discount over its NAV.

**Figure 1. First Philippine Fund Weekly Premium (Discount)  
November 24, 1989 to December 29, 1995**



The FPF was launched in November 1989 when the Philippine market was booming amid hopes that the country was finally set to join the ranks of Asia's newly industrialized countries. More importantly, as discussed earlier, the FPF is the only country fund permitted by the Philippine government to invest in "A" shares of companies that are otherwise available only to Philippine nationals. This possibly explains the premium when the fund was launched. However, within several weeks of the launching of the fund, right wing factions of the military attempted to overthrow the Philippine government. This adversely affected the Philippine stock market causing the Manila Stock Exchange Composite Index to fall by 26 percent within one week after trading began. In response to the coup attempt and combined with the perception that prices of Philippine securities had been inflated by speculators in anticipation of the fund's entry into the market, the FPF management adopted a policy

of proceeding cautiously into the market. The fund remained primarily in cash (nonpeso cash and cash equivalents as U.S. Treasury bonds) such that total investments in Philippine common stocks stood at 0.3 percent of total net assets of the fund as of December 31, 1989, gradually increasing to 24.5 percent by June 30, 1990, and then to 27.4 percent as of December 31, 1990.<sup>11</sup> Clearly, changes in premium during the first four months had more to do with investor sentiment in the U.S. than with the economic fundamentals in the Philippines.<sup>12</sup>

Therefore, following Johnson et al. (1993), we exclude from the sample the four-month period immediately following the initial public offering of the FPF. By doing so, the fund's share price (and consequently the fund's percentage premium/discount) is thus not biased by initial marketing efforts and speculation by local holders of Philippine securities or by the sentiment of fund investors. Moreover, changes in the premium confounded by the effect of the December 1989 attempted coup is avoided. Consequently, the adjusted sample used for this study covers the period March 30, 1990 to December 29, 1995.<sup>13</sup>

Figure 2 shows the FPF's weekly discount over the adjusted sample period March 30, 1990 to December 29, 1995. On average, the FPF has traded at a discount of 19 percent over this sample period, suggesting a sizable variation in the fund's discount over time. The following section discusses the procedure for testing whether some of this variation can be explained by announcements of changes in the Philippines' international investment restrictions.

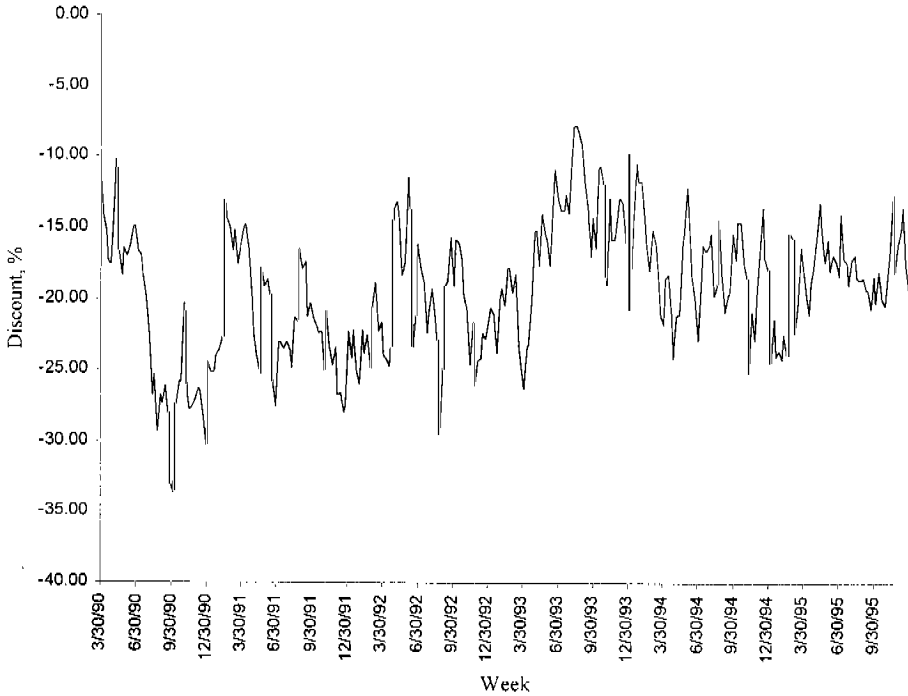
## **METHODOLOGY**

### **Identification of Events**

The criteria for selecting the events related to changes in barriers to international investment in the Philippines is as follows. Following Bonser-Neal et al. (1990), we consider two types of regulatory changes: (a) changes in restrictions that directly affect or signal changes in the ability of foreign investors to acquire shares of Philippine companies or the ability of local investors to invest outside the Philippines (e.g., capital controls affecting direct investment and portfolio investment) and (b)



**Figure 2. First Philippine Fund Weekly Premium (Discount)  
March 30, 1990 to December 29, 1995**



changes in restrictions that affect the ability of investors to obtain the currency required to purchase local or foreign assets (e.g., capital controls affecting nonresident accounts and resident foreign exchange accounts).<sup>14</sup> An initial list of 18 events has been obtained from the International Monetary Fund's Annual Report on Exchange Arrangements and Exchange Restrictions. If the announcement dates for the identified events are not in this source, then they have been collected from *The Wall Street Journal*. An event is dropped from the list if its announcement date could not be found. Likewise, events are dropped from the initial list if multiple announcements of changes in investment restrictions occur within less than six weeks of each other. Five events, all of which happen to entail a liberalization of international investment restrictions, satisfy the preceding criteria. A description of these events is provided in Appendix A.

### **Tests of the Effects of Changes in International Investment Restrictions**

This section describes the procedure for testing whether announcements of changes in the foreign investment restrictions in the Philippines are associated with changes in the FPF's premiums or discounts.<sup>15</sup>

If the existing international investment barriers prior to the regulatory changes are effective, an announcement of a liberalization of investment restrictions should be associated with an increase in the discount of the FPF. The null hypothesis is that announcements of liberalization of international investment restrictions in the Philippines do not affect the FPF's discounts. The alternative hypothesis is that announcements increase the discount of the fund. We only consider the impact of announcements related to a relaxation of investment restrictions since all of the events in the sample happen to involve some form of liberalization.

We test this hypothesis using the regression model:

$$\Delta PD_t = \beta_0 + \beta_1 D_{1t} + \beta_2 D_{2t} + \beta_3 D_{3t} + \varepsilon_t$$

Here  $\Delta PD_t$  is the change in the fund's discount in week  $t$ . The dummy variable  $D_{1t} = 1$  if  $t$  is between two and seven weeks before the announcement and 0 otherwise. The dummy variable  $D_{2t} = 1$  if  $t$  is between one week before and one week after the announcement and 0 otherwise. The dummy variable  $D_{3t} = 1$  if  $t$  is between two and seven weeks after the announcement and 0 otherwise.<sup>16</sup> A three-week window is used as the event period in order to reduce the potential for bias in the estimates of the coefficients in Equation (1) due to the effects of nonsynchronous trading, lagged reporting of the fund's price and NAV and a possible lagged reporting of the event itself. Table 1 shows that there are some positive and statistically significant noncontemporaneous cross-correlations between the fund's share price changes and changes in NAV. In particular, the statistically significant cross-correlation coefficient of 0.14 at lag -1 indicates that a change in the fund's share price over one week predicts the change in the fund's NAV over the next week. In the same manner, the cross-

**Table 1: Sample Cross-Correlations Between Fund Share Price Changes and Net Asset Value Changes of the FPF Closed-end Country Fund Computed Using Weekly Data from March 30, 1990 to December 29, 1995<sup>a</sup>**

Lag													
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
0.07	0.03	0.01	0.06	-0.02	<b>0.14</b>	<b>0.54</b>	<b>0.23</b>	0.04	<b>0.2</b>	-0.01	-0.08	-0.05	
(1.26)	(0.55)	(0.10)	(1.05)	(0.30)	<b>(2.48)*</b>	<b>(11.07)*</b>	<b>(4.08)*</b>	(0.64)	<b>(3.48)*</b>	(0.25)	(1.42)	(0.89)	

\*Figures in parentheses are t-ratios  
 The superscript a denotes significance at the 0.01 level.

correlation coefficient of 0.23 at lag 1 suggests that a change in the NAV over one week predicts the change in the fund’s share price over the next week. These are consistent with reporting lags or nonsynchronous trading which cause recorded prices and NAVs to respond to new information at different times.<sup>17</sup>

The parameters  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  measure the effects on the FPF’s discount changes of announced changes in international investment restrictions in the Philippines. The coefficient  $b_1$  measures the average weekly change in the fund’s discount prior to the announcement of regulatory changes. The coefficient  $b_2$  measures the average weekly change in the fund’s discount during the three-week period surrounding the announcement. The coefficient  $\beta_3$  measures the average weekly change in the fund’s discount after the announcement. These parameters are estimated using ordinary least squares and their statistical significance are determined based on Newey and West (1987) adjusted standard errors and *t*-statistics which are robust to serial correlation and heteroscedasticity.<sup>18</sup> Holding all other things constant, the coefficient  $b_2$  should not be significantly different from zero under the null hypothesis. On the other hand, under the alternative hypothesis, this coefficient should be negative and statistically significant if the barriers to international investments that existed before the announced liberalizations have effectively restricted foreign access to the Philippine capital market.

**EMPIRICAL RESULTS**

Table 2 shows the results of estimating Equation (1). The estimate of the coefficient  $\beta_2$  indicates that, on average, an announcement of a

relaxation of investment restrictions in the Philippines is associated with a 0.45 percent increase in the fund's discount. However, while the estimate of the coefficient  $\beta_2$  is of the expected sign, the null hypothesis that the announcement has no effect on the fund's discount during the three weeks surrounding the announcement cannot be rejected at the conventional levels of significance. This result suggests that U.S. investors do not react to the announced liberalizations during the event period.

Table 2 also reports the results of testing the null hypotheses that discounts do not increase during the weeks before and after the

**Table 2: Test of the Effect of Changes in Philippine International Investment Restrictions on the FPF Closed-end Country Fund Discount Using Weekly Data from March 30, 1990 to December 29, 1995<sup>a</sup>**

$$\Delta PD_t = \beta_0 + \beta_1 D_{1t} + \beta_2 D_{2t} + \beta_3 D_{3t} + \varepsilon_t$$

where  $\Delta PD_t$  is the change in the FPF's discount in week  $t$

- $D_{1t}$  = 1 if  $t$  is between two and seven weeks before the announcement of a loosening of the Philippines' investment restrictions and 0 otherwise
- $D_{2t}$  = 1 if  $t$  is between one week before and one week after the announcement of a loosening of the Philippines' investment restrictions and 0 otherwise
- $D_{3t}$  = 1 if  $t$  is between two and seven weeks after the announcement of a loosening of the Philippines' investment restrictions and 0 otherwise.

Parameter	Estimate
$\beta_0$	-0.034 (-0.23)
$\beta_1$	0.188 (0.33)
$\beta_2$	-0.449 (-0.83)
$\beta_3$	0.05 (0.09)
$R^2$	0.0015

<sup>a</sup> Figures in parentheses are t-ratios for tests of the hypotheses  $\beta_i \geq 0$  against the alternative that  $\beta_i < 0$ ,  $i=0, 1, 2, 3$ , based on OLS regression with standard errors computed using the Newey-West (1987) correction for heteroscedasticity and 3rd-order serial correlation.

announcement period. The hypothesis is that  $\beta_1 \geq 0$  cannot be rejected at the conventional levels of significance, indicating that U.S. investors do not react prior to the announcement period. Likewise, the hypothesis is that  $\beta_3 \geq 0$  cannot be rejected at the conventional levels of significance, suggesting that there is no delayed response to the announced regulatory changes.<sup>19</sup>

Overall, the results indicate that U.S. investors do not respond to the aggregate announcement of relaxations in international investment restrictions during the sample period. This finding suggests either that U.S. investors perceive the prior restrictions as ineffective or that they view the announced regulatory changes as unimportant (i.e., not a significant or major relaxation of existing restrictions) **or both**.

However, these suggestions are counterintuitive to commonly accepted wisdom. In particular, we are less inclined to believe that the announcement effect was insignificant only because U.S. investors view the prior restrictions as ineffective. The following anecdotal evidence and stylized facts seem to favor more the possibility that U.S. investors perceive the prior restrictions as effective deterrents to directly investing in Philippine listed securities.

For example, prior to the major liberalization of the Philippine foreign investment policy in November 1991, foreign investors perceived the then existing restrictions as impediments to foreign investments. In particular, foreign investors expressed that the foreign equity ownership restrictions of the Philippines were the most stringent among ASEAN countries (Unite 1995). In fact, foreign participation was limited to 40 percent of equity in most businesses prior to this policy change. Ownership restrictions were most often effective for these firms since most companies that fall into these restricted areas generally classify their shares into two categories: "A" shares and "B" shares. The effectiveness of this restriction is evidenced by the fact that the Central Bank of the Philippines can monitor stock purchases by foreigners as they are legally allowed only to purchase "B" shares. Moreover, the Central Bank requires that such acquisitions be registered in order to qualify for repatriation of dividends and the proceeds resulting from subsequent sale.

On the other hand, unlike firms, banks are heavily regulated (see e.g., Lamberte and Llanto 1995). Before the liberalization of the banking

sector, entry of foreign banks and equity ownership of domestic banks and financial institutions by foreigners were highly regulated by the Central Bank of the Philippines via the General Banking Act and other laws under the supervision of the Central Bank. In contrast with publicly traded non-bank firms, almost all publicly traded banks do not follow the "A" share – "B" share convention as a means of complying with the foreign equity restriction. Instead, they "float a sufficiently small percentage of their shares so that even if all those floated shares were purchased by foreigners it would not violate foreign ownership restriction" (Rodrigo 1993).<sup>20</sup>

Finally, under prior foreign exchange regulations, repatriation of capital and remittance of dividends and interest require approval by the Central Bank and were staggered from three to nine years. In fact, it took four to six months before approval was given and transactions were settled (Lamberte and Llanto 1995). The rules also stipulated that "while waiting for reinvestment or repatriation, divestment proceeds of duly registered foreign investment as well as cash dividends, interest payments and divestment proceeds of stock dividend/splits were allowed to be placed only in government securities, shares of stock of BOI-registered industries and shares of stock in Central Bank-certified export-oriented industries with prior Central Bank approval" (Lamberte and Llanto 1993).<sup>21</sup> It seems reasonable to infer that, because of their bureaucratic nature and their associated opportunity costs, the prior rules and regulations are costly and may be perceived as effective impediments for individual U.S. foreign investors who wish to directly invest in the Philippine stock market.<sup>22</sup>

A possible reason then for these counterintuitive results is as follows. Previous studies using closed-end country funds to gauge the impact of capital market liberalization have concentrated on analyzing the effect of the aggregate announcements of such regulatory changes. It is possible that when such studies found insignificant announcement effects, it could have been because they did not differentiate between announcements which were more likely to be important to foreign investors wishing to directly participate in the domestic stock market and those which were not.<sup>23</sup> Therefore, it is possible that a significant announcement effect is observed only if the restrictions are effective and at the same time if U.S. investors perceive the announced liberalization of the restriction

as important (i.e., a significant or major relaxation). Consequently, the prior international investment restrictions in the Philippines may have been effective but the significant effect of important announcements on the FPF's discount changes were washed out by the insignificant effects of announcements which were deemed unimportant by investors. This possibly resulted to the overall announcement effect being insignificant when all announcements were considered collectively. We discount the possibility that the announced changes were fully anticipated since the pre-announcement coefficient was found to be insignificant.

In order to test this hypothesis, we classify the events in the sample into three groups: (a) announcements related to a major relaxation of foreign equity participation limits via the Foreign Investment Act of 1991 (events dated 6/6/91 and 6/22/94), (b) announcements related to the relaxation of foreign exchange restrictions (events dated 1/3/92 and 8/10/92), and (c) announcements related to the liberalization of entry of foreign banks to operate in the Philippines which is not covered by the Foreign Investment Act of 1991 (event dated 10/14/94). Although both involve a major relaxation of foreign equity participation limits, the last category was treated separately from the first one because it applies more to direct equity investors, who seek a degree of control over the local company, than to individual portfolio investors.

The new regression model is:

$$\Delta PD_t = \alpha_0 + \alpha_2 FIA_{2t} + \alpha_3 FIA_{3t} + \alpha_4 FX_{1t} + \alpha_5 FX_{2t} + \alpha_6 FX_{3t} + \alpha_7 BK_{1t} + \alpha_8 BK_{2t} + \alpha_9 BK_{3t} + u_t$$

As in Equation (1),  $\Delta DPD_t$  is the change in the fund's discount in week  $t$ . The  $FIA_{it}$ s represent the dummy variables for the announcement of a liberalization of the foreign equity participation limits in economic areas other than banking. The  $FX_{it}$ s are the dummy variables for the announcement of a liberalization of foreign exchange restrictions. The  $BK_{it}$ s are the dummy variables for the announcement of liberalization of entry of foreign banks. The values that these dummy variables take, for  $i = 1, 2$ , and  $3$ , follow those of model (1). Longer windows for the pre- and

post-announcement periods were also considered but they produced similar results.

The coefficients  $\alpha_2$ ,  $\alpha_5$  and  $\alpha_8$  measure the average weekly change in the fund's discount during the three-week period surrounding the announcement of regulatory changes in foreign equity participation limits on economic areas other than banking, foreign exchange restrictions, and foreign banks entry restrictions, respectively. The coefficients  $\alpha_1$ ,  $\alpha_4$  and  $\alpha_7$  measure the average weekly effect on the fund's discount before the announcement of regulatory changes on foreign equity participation limits on economic areas other than banking, foreign exchange restrictions, and foreign banks entry restrictions, respectively. The coefficients  $\alpha_3$ ,  $\alpha_6$  and  $\alpha_9$  capture the effects of changes in the fund's discount after the announcement of regulatory changes on foreign equity participation limits on economic areas other than banking, foreign exchange restrictions, and foreign banks entry restrictions, respectively.

Table 3 summarizes the results of estimating Equation (2). The estimate of the coefficient  $\alpha_2$  indicates that during the three-week event period, an announcement of a liberalization of foreign equity participation limits in economic areas other than banking is on average associated with a 1.53 percent increase in the fund's discount. The Newey-West adjusted t-ratio suggests that the null hypothesis that the announcement of a relaxation of foreign equity participation restrictions has no effect on the fund's discount during the three weeks surrounding the announcement can be rejected at the 1 percent level of significance.

On the other hand, although the estimate of the coefficient corresponding to announcements of relaxation of foreign exchange restrictions,  $\alpha_5$ , is of the expected sign, it is statistically insignificant, suggesting that announcement of a liberalization of foreign exchange restrictions has no effect on the fund's discount during the three weeks surrounding the announcement. Meanwhile, the estimate of the coefficient corresponding to the announcement of the liberalization of entry of foreign banks in the Philippines,  $\alpha_8$ , is positive, contrary to what is expected. However, this estimated coefficient is statistically insignificant, suggesting that the announcement of the liberalization of entry of foreign banks in the Philippines has no effect on the fund's discount.



**Table 3: Tests of the Effect of Changes in Philippine International Investment Restrictions by Category of Regulatory Change on the FPF Closed-end Country Fund Discount Using Weekly Data from March 30, 1990 to December 29, 1995 <sup>a</sup>**

$$\Delta PD_t = \alpha_0 + \alpha_1 FIA_{1t} + \alpha_2 FIA_{2t} + \alpha_3 FIA_{3t} + \alpha_4 FX_{1t} + \alpha_5 FX_{2t} + \alpha_6 FX_{3t} + \alpha_7 BK_{1t} + \alpha_8 BK_{2t} + \alpha_9 BK_{3t} + u_t$$

where  $\Delta PD_t$  is the change in the FPF's discount in week  $t$   
 $FIA_{1t}$  = 1 if  $t$  is between two and seven weeks before the announcement of a loosening of the foreign equity participation limits in economic areas other than banking and 0 otherwise  
 $FIA_{2t}$  = 1 if  $t$  is between one week before and one week after the announcement of a loosening of the foreign equity participation limits in economic areas other than banking and 0 otherwise  
 $FIA_{3t}$  = 1 if  $t$  is between two and seven weeks after the announcement of a loosening of the foreign equity participation limits in economic areas other than banking and 0 otherwise;  
 $FX_{1t}$  = 1 if  $t$  is between two and seven weeks before the announcement of a loosening of the foreign exchange restrictions and 0 otherwise  
 $FX_{2t}$  = 1 if  $t$  is between one week before and one week after the announcement of a loosening of the foreign exchange restrictions and 0 otherwise  
 $FX_{3t}$  = 1 if  $t$  is between two and seven weeks after the announcement of a loosening of the foreign exchange restrictions and 0 otherwise  
 $BK_{1t}$  = 1 if  $t$  is between two and seven weeks before the announcement of liberalization of entry of foreign banks and 0 otherwise  
 $BK_{2t}$  = 1 if  $t$  is between one week before and one week after the announcement of liberalization of entry of foreign banks and 0 otherwise  
 $BK_{3t}$  = 1 if  $t$  is between two and seven weeks after the announcement of liberalization of entry of foreign banks and 0 otherwise.

Parameter	Estimate
$\alpha_0$	-0.034 (-0.23)
$\alpha_1$	0.473 (0.44)
$\alpha_2$	<b>-1.529</b> <b>(-2.88)*</b>
$\alpha_3$	0.055 (0.07)
$\alpha_4$	-0.325 (-0.48)
$\alpha_5$	0.28 (0.36)
$\alpha_6$	0.49 (0.69)
$\alpha_7$	0.646 (0.66)
$\alpha_8$	0.254 (0.47)
$\alpha_9$	-0.842 (-0.75)
$R^2$	0.0103

<sup>a</sup> Figures in parentheses are t-ratios for tests of the hypotheses  $\alpha_i \geq 0$  against the alternative that  $\alpha_i < 0$ ,  $i=0, 1, 2, \dots, 9$ , based on OLS regression with standard errors computed using the Newey-West (1987) correction for heteroscedasticity and 3rd-order serial correlation.

The superscript \* denotes significance at the 0.01 level.

For each group of announcements, the results of testing the null hypothesis that the fund's discounts do not increase during the weeks before the event period are also reported in Table 3. The hypotheses that  $\alpha_1 \geq 0$ ,  $\alpha_4 \geq 0$  and  $\alpha_7 \geq 0$  cannot be rejected at the conventional levels of significance. These results suggest that changes in Philippine investment restrictions on each of the three groups of announcements have not been anticipated by U.S. investors. They also indicate that the insignificant effects for announcements related to regulatory changes in foreign exchange restrictions and liberalization of entry of foreign banks are not a consequence of the announcements having been anticipated by U.S. investors. Likewise, the null hypotheses that the FPF's discounts do not fall during the weeks after the event period for each group of announcements are also tested. The null hypotheses that  $\alpha_3 \geq 0$ ,  $\alpha_6 \geq 0$ , or  $\alpha_9 \geq 0$  cannot be rejected at the conventional levels of significance indicating that there is no delayed response to each group of announcements.

The finding of a significant effect for announcements related to the relaxation of foreign equity participation in most areas of economic activity other than banking suggests that U.S. investors view these regulatory changes as important and the existing restrictions as effective. In fact, the passage of the Foreign Investment Act of 1991 which opened virtually all areas of economic activity to up to 100 percent foreign ownership is considered as the most resolute step taken by the Philippine government to reverse its once unfriendly attitude towards foreign investors.

On the other hand, the insignificant effects of announcements related to the liberalization of foreign exchange restrictions and relaxation of restrictions on entry of foreign banks suggest that U.S. investors perceive the announced changes as relatively unimportant. The earlier discussions provide the rationale why we are less inclined to believe the alternative that the effects of these groups of announcements are statistically insignificant because U.S. investors find the prior restrictions as ineffective.

A possible reason that U.S. investors may have perceived the announced relaxation of the foreign exchange restriction is as follows. Prior to the announced foreign exchange liberalization which allowed full and immediate repatriation of foreign investment proceeds without need for prior approval by the Central Bank of the Philippines, full repatriation

and remittance privileges for foreign investments were already allowed though on a staggered basis and subject to approval by the Central Bank. In addition, foreign investors still have to deal with rigorous reporting requirements that remain despite the regulatory change. For example, Euromoney (1996) cites the inefficiencies associated with the remaining reportorial process.<sup>24</sup>

On the other hand, the announced liberalization of entry of foreign banks effected via a purchase of 60 percent of the voting stock of an existing domestic bank or through a new banking subsidiary incorporated in the Philippines may have been viewed by individual portfolio investors as unimportant. This is because banking liberalization mostly affects institutional investors who seek control of the domestic enterprise through direct investment rather than individual portfolio investors who seek potential global diversification benefits via country funds. Bodhurta et al. (1995) document that as of December 1990, institutional ownership in the First Philippine Fund constitute only 12 percent of the total shares of the fund. Therefore, the insignificant announcement effect of banking liberalization possibly reflects the perceptions of the individual investors of the FPF who represent the majority. Alternatively, U.S. investors may have perceived this announcement to be of minor importance relative to the announced opening up of other sectors of economic activity. These inferences do not imply, however, that individual investors do not prefer to hold portfolio investments in the banking sector. Appendix B lends some support to the preceding inferences. It shows that the percentage of the net assets of the FPF in common stocks of banks have been growing between 1991 and 1995, especially in the year after the announcement of banking liberalization. However, it constitutes only under 20 percent of total net assets of the fund compared to the 80 percent share of net assets in nonbank common stocks as of June 30, 1995. This is reflected also in the percentage distribution and growth rates of total inward portfolio investments in the Philippines. An examination of the annual total inward portfolio investments in approved government/listed securities from the Foreign Exchange Department of the Bangko Sentral ng Pilipinas shows that investment in the banking sector constitute only 11.61 percent of the total inward portfolio investments in 1995 compared to 86.49 percent for the nonbanking sectors.

The events in the sample were also classified simply into two groups: announcements related to the liberalization of foreign equity participation limits (Foreign Investment Act of 1991 and banking liberalization combined) and those related to a liberalization of foreign exchange restrictions. The regression model for this alternative classification of events is:

$$\Delta DPD_t = \gamma_0 + \gamma_1 FIABK_{1t} + \gamma_2 FIABK_{2t} + \gamma_3 FIABK_{3t} + \gamma_4 FX_{1t} + \gamma_5 FX_{2t} + \gamma_6 FX_{3t} + \eta_t$$

$\Delta DPD_t$  represents the change in the fund's discount in week  $t$ . The  $FIABK_{it}$ s represent the dummy variables for the announcement of a liberalization of foreign equity participation limits in general. The  $FX_{it}$ s are the dummy variables for the announcement of a liberalization of foreign exchange restrictions. The values that these dummy variables take, for  $i = 1, 2,$  and  $3$ , follow those of model (1). Similar results were found when longer windows for the pre- and post-announcement periods were used.

The coefficients  $\gamma_2$  and  $\gamma_5$  measure the average weekly change in the fund's discount during the three-week period surrounding the announcement of regulatory changes in foreign equity participation limits and foreign exchange restrictions, respectively. The coefficients  $\gamma_1$  and  $\gamma_4$  measure the average weekly effect on the fund's discount before the announcement of regulatory changes on foreign equity participation limits and foreign exchange restrictions, respectively. The coefficients  $\gamma_3$  and  $\gamma_6$  represent the effects of changes in the fund's discount after the announcement of regulatory changes on foreign equity participation limits and foreign exchange restrictions, respectively.

The results, reported in Table 4, are similar to those of the second model, though weaker in terms of statistical significance. The estimate of the coefficient  $g_2$  indicates that, on average, an announcement of relaxation of foreign equity limits in general is associated with a 0.93% increase in the discount of the FPF country fund during the three week period surrounding the announcement. This announcement effect is statistically significant at the 0.10 level, which is relatively weaker than when announcements related to the Foreign Investment Act of 1991 are classified in a different group. On the other hand, the estimate of the coefficient corresponding to the announcement of relaxation of foreign exchange restrictions,  $\gamma_5$ , is positive, contrary to what is expected. However, this

**Table 4: Tests of the Effect of Changes in Philippine International Investment Restrictions by Category of Regulatory Change on the FPF Closed-end Country Fund Discount Using Weekly Data from March 30, 1990 to December 29, 1995\***

$$\Delta PD_t = \gamma_0 + \gamma_1 FIABK_{1t} + \gamma_2 FIABK_{2t} + \gamma_3 FIABK_{3t} + \gamma_4 FX_{1t} + \gamma_5 FX_{2t} + \gamma_6 FX_{3t} + \eta_t$$

where  $\Delta PD_t$  is the change in the FPF's discount in week  $t$

$FIABK_{1t}$  = 1 if  $t$  is between two and seven weeks before the announcement of a loosening of the foreign equity participation limits in economic areas including banking and 0 otherwise

$FIABK_{2t}$  = 1 if  $t$  is between one week before and one week after the announcement of a loosening of the foreign equity participation limits in economic areas including banking and 0 otherwise

$FIABK_{3t}$  = 1 if  $t$  is between two and seven weeks after the announcement of a loosening of the foreign equity participation limits in economic areas including and 0 otherwise;

$FX_{1t}$  = 1 if  $t$  is between two and seven weeks before the announcement of a loosening of the foreign exchange restrictions and 0 otherwise

$FX_{2t}$  = 1 if  $t$  is between one week before and one week after the announcement of a loosening of the foreign exchange restrictions and 0 otherwise

$FX_{3t}$  = 1 if  $t$  is between two and seven weeks after the announcement of a loosening of the foreign exchange restrictions and 0 otherwise

Parameter	Estimate
$\gamma_0$	-0.034 (-0.23)
$\gamma_1$	0.531 (-0.67)
$\gamma_2$	<b>-0.934</b> <b>(-1.55)***</b>
$\gamma_3$	-0.244 (-0.36)
$\gamma_4$	-0.325 (-0.48)
$\gamma_5$	0.280 (0.36)
$\gamma_6$	0.490 (0.69)
$R^2$	0.0068

\* Figures in parentheses are t-ratios for tests of the hypotheses  $\gamma_i \geq 0$  against the alternative that  $\gamma_i < 0$ ,  $i=0, 1, 2, \dots, 6$ , based on OLS regression with standard errors computed using the Newey-West (1987) correction for heteroscedasticity and 3rd-order serial correlation.

The superscript \*\*\* denotes significance at the 0.10 level.

coefficient is statistically insignificant. The test of the hypothesis that the fund's discounts rise during the weeks prior to the announcement period for each group of announcements, i.e.,  $\gamma_1 \geq 0$  and  $\gamma_4 \geq 0$ , cannot be rejected at the conventional levels of significance. This implies that the announcements are not anticipated by investors. Likewise, there are no indications of delayed response to the announced regulatory changes as indicated by the nonrejection at the conventional levels of significance of the null hypotheses that  $\gamma_3 \geq 0$  and  $\gamma_6 \geq 0$ .

The finding that announcements related to the relaxation of foreign equity participation limits is significant suggests that the existing barriers in this category effectively restrict foreign investors access to the Philippine equity market. However, that the announcement effect is weakly significant when the banking liberalization is included in the announcements related to the Foreign Investment Act of 1991 implies that the impact on the fund's discount is stronger only when the foreign equity ownership other than banking is relaxed.

## CONCLUSIONS

In this study, we investigate the impact of liberalization of international investment restrictions in the Philippines on the discounts of the First Philippine Fund closed-end country fund. We test whether announcements of changes in investment restrictions are associated with changes in the fund's premiums and discounts. If the barriers to international investments are effective, announced liberalizations of restrictions should reduce the premium or increase the discount of the country fund.

The overall results suggest that there is evidence supporting the hypothesis that changes in the FPF's discounts are associated with announcements of changes in international investment restrictions. However, although there are indications that the existing barriers are effective, a significant relationship appears to hold only when announcements are deemed important by U.S. investors. Specifically, the results suggest that announcements of liberalization of investment

restrictions that limit foreign equity participation in areas of business other than banking and financial institutions are significantly associated with an increase in the fund's discount. On the other hand, the announcements related to the relaxation of foreign exchange restrictions (in particular the removal of restrictions on the ability of foreign investors to repatriate investments and dividends) and liberalization of entry of foreign banks to operate in the Philippines seem to be viewed by individual portfolio investors as relatively unimportant. There are no indications that the investors fully anticipate these announcements.

The findings of the study provide evidence that Philippine barriers to international investments represented by foreign equity ownership limits in most economic activities have been effective and that announced liberalization of this restriction is deemed important by U.S. investors. The results also indicate that the foreign equity ownership restriction has been effective in segmenting the Philippine equity market. One implication of this evidence is that, all else constant, foreign equity ownership restrictions raised the required return on Philippine equities. To the extent that Philippine companies finance new investment projects through the stock market, ownership restrictions increased the cost of capital for the domestic firms. Therefore, the finding that the FPF's discount increases with the liberalization of ownership restrictions implies a reduction in the cost of raising capital in the Philippine stock market.

Sourcing of funds to finance investment projects is one of the critical problems faced by a developing economy like the Philippines. As a consequence, the country has pursued liberalization programs aimed at developing the domestic capital market and mobilizing domestic resources. The removal of market barriers in the financial sector through various liberalization measures has created direct as well as indirect impacts on the inflow of foreign funds into the country. The direct effects are quite obvious but we have shown the potential indirect effects. The significant relationship estimated between news on liberalization measures and the movement of returns on a fund that has underlying peso-denominated financial securities establishes this indirect impact. The continuance and consistency of liberalization measures have the potential of making peso-

denominated assets attractive in the international capital market. This attractiveness, in effect, creates additional demand for peso-denominated assets, which, in turn, may raise funds for various investment undertakings. Thus, macroeconomic measures make an impact on financial features of firms viewed from the international capital market. It is therefore imperative on the part of Philippine policymakers to pursue consistent macroeconomic policies as well as to continue the liberalization programs.

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## NOTES

- <sup>1</sup> Nondiversified means that the country fund is not limited by the U.S. Investment Company Act of 1940 in the proportion of its assets that it may invest in the securities of a single issuer (Standard & Poors 1989).
- <sup>2</sup> This restriction on foreign equity participation was relaxed with the implementation of the Philippine Foreign Investments Act of 1991. This measure virtually opened all economic sectors to 100 percent foreign equity ownership, except in those areas specified in a transitory negative list. A key feature of the FIA is the negative list of sectors where foreign investment would be limited to a maximum of 40 percent, but free to invest in all other sectors without prior approval from authorities. On October 1991, a three-year transitional period went into effect during which foreign ownership was restricted to a maximum of 40 percent in sectors specified in the transitory negative list. The issuance of Executive Order No. 182 in June 1994 effectively deleted List C of the transitory negative list. Foreigners can now fully own businesses in areas such as insurance, travel agencies, wholesale trading, convention organizing, and manufacturing under foreign licenses.
- <sup>3</sup> It must be noted, however, that not all companies follow this "A" and "B" share convention. Exceptions include (a) companies that are not involved in restricted areas of business and do not own land and (b) companies that float a sufficiently small percentage of their shares so that even if all those floated shares were purchased by foreigners it would not violate foreign ownership restriction (Rodrigo 1993). As a result of the liberalization of foreign equity restrictions, firms that have recently listed their shares rarely resort to this share classification.
- <sup>4</sup> In addition, the international asset pricing models of Black (1974) and Stulz (1981) provide implications on the relationship between barriers to international investments and country funds' price-to-NAV ratios. However, the models of Eun and Janakiramanan (1986) and Hietala (1989) seem to capture better the nature of investment restrictions in the Philippine equity market. Black (1974) and Stulz (1981) assume that international investment barriers take the form of a tax on holdings of foreign risky assets by domestic investors that make it costly to hold foreign securities relative to domestic securities. The restriction essentially places a limit on the amount of capital that domestic investors can export. Both models predict that the expected return on long positions on foreign assets will exceed the expected return on a domestic asset of the identical risk by the rate at which such holdings are taxed thereby ensuring that after-tax expected returns on the two assets are the same. The closed-end country funds, whose underlying shares are foreign risky assets, are analogous to long positions on foreign risky assets indirectly taken by domestic investors while the country funds' shares themselves can be considered as domestic assets of about the same risk. Therefore, these models suggest that international investment restrictions that make it costly for a domestic investor to hold foreign assets relative to domestic assets will increase the required return on the country funds' underlying assets relative to the required return on the funds' shares themselves. Consequently, the imposition of effective or binding restrictions in a country will increase the price-to-NAV ratio investing in that country by an amount related to the tax exacted.
- <sup>5</sup> Chang, Eun and Kolodny (1995), Johnson, Schneeweis and Dinning (1993), and Diwan, Errunza and Senbet (1993) provide evidence of international diversification benefits through investment in closed-end country funds, especially in funds devoted to emerging markets' securities.

- <sup>6</sup> Stylized facts seem to support this argument. For example, Mullin (1993) reports that during the mid-1980s, closed-end country funds were the primary, and in some cases, the only available, means through which foreign portfolio investors 'purchased' emerging market equities. The issuance of such funds peaked in 1990 at US\$3.4 billion and then declined to US\$1.2 billion in 1991. This decline was in contrast to the observed rapid increase in international placements and direct equity portfolio inflows during the same period. He cites that an apparent reason for the dampened demand for closed-end country fund shares and acceleration of direct equity portfolio inflows can be attributed to capital market liberalization reforms instituted by several developing countries, which reduced the impediments to direct equity purchases by foreigners. To support this argument, Mullin (1993) provides an inventory of liberalization of restrictions on foreign access to the equity markets of developing countries including Argentina, Brazil, Chile, Mexico, Korea, Taiwan, Malaysia, Thailand, and India which occurred during the period 1989 to 1992.
- <sup>7</sup> It should be noted that there are other country funds devoted to investing in Philippine securities and which are traded in the London stock exchange. It would have been interesting to examine how European investors view the announced changes in the international investment restrictions in the Philippines as well. However, data on these country funds were not readily available.
- <sup>8</sup> Although the FPF was listed on November 8, 1989, it began trading only on November 15, 1989 (Standard & Poors 1990).
- <sup>3</sup> The New York Stock Exchange operates from 0930 to 1600 New York time. The operating hours of the Philippine stock exchange is from 0930 to 1200 local time or 2000 to 2300 of previous day New York time. The market is open from Monday through Friday in both exchanges.
- <sup>10</sup> The gaps in the plot correspond to the weeks of April 5, 1991, November 27, 1992, and March 3, 1995, respectively, when the fund did not report its NAV. The procedure for estimating these missing values is discussed in Note 13.
- <sup>11</sup> Note, however, that investments in Philippine equities represented 57.3 percent of net assets of the fund as of June 30, 1991 and at 96.2 percent as of June 30, 1995 (Standard & Poors NYSE Stock Reports, 1991 and 1995).
- <sup>12</sup> Hardouvelis et al. (1994) examine the extent to which the noise-trader model of asset prices (De Long, Shleifer, Summers, and Waldman 1990) can explain the empirical regularities of the weekly price behavior of 35 country funds that traded on the New York and American stock exchanges between 1986 and 1993. A feature of the noise trader model is the variation in the demand of noise traders arising from shifts in sentiment or misperceptions of fundamental value. Among other things, they find that, like their domestic counterparts, country funds are typically issued at a premium and that the premium declines by approximately 20 percent over the 24 weeks following the initial public offering. They argue that this is consistent with the predictions of the noise-trading model. One prediction of this model is that a new fund will be issued only when sentiment for the fund is high. The premium at the initial offering of a country fund is then explained by the ability of fund organizers to time the issuance of funds to coincide with positive fund investor sentiment (e.g., bullish investor sentiment for a country). On the other hand, the subsequent deterioration in the premium is explained by mean-reversion in fund investor sentiment.
- <sup>13</sup> We estimate the three missing observations based on this adjusted sample. The procedure is based on Beveridge's (1992) extension of the linear least squares

interpolator. An advantage of this technique over the earlier procedures of estimation of missing values is that it can handle any pattern of nonconsecutive observations. First, the NAVs are adjusted to include dividends and capital gains distributed during the period. Per closed-end fund reporting conventions, dividends and capital gains are deducted from reported NAV when the shares go ex-dividend and not on the dividend payment date. Secondly, autoregressive (AR) models were estimated for the NAV series immediately prior to the first missing observation. Similarly, AR models were estimated for the series of NAV immediately after the first missing observation up to the observation immediately before the second missing observation and for the series of NAV immediately after the second missing observation up to the observation immediately before the third missing observation. Using the Schwarz Information Criterion (SIC), an AR(1) was found to be the best model in each case. In each case, the estimate of the AR(1) coefficient is significant and very close to 1 and the residual autocorrelations of the estimated model are all statistically insignificant at the 0.01 level. These suggest that the NAV series follows a random walk. To confirm this, each series was first differenced. The autocorrelations of each of the first difference series are all statistically insignificant. Therefore, the best estimate (minimum mean squared error) of each of the three missing values is obtained by taking a simple average of the NAV observations, with dividends and capital gains payments included, immediately before and after the missing value and then deducting the dividends and capital gains payments.

14 Direct investments are investments which give the investor some degree of control over the funds invested (e.g., acquisitions of 10-25% of voting shares of a company) while portfolio investments are not afforded such control (e.g., purchases of bonds and equity ownership of less than 10-25% of voting shares) (International Monetary Fund 1977).

15 We will only refer to discount changes and not premium changes for the rest of the paper. The reason for this is that the FPF consistently traded at a discount over its NAV during the period under study.

16 A similar model is employed by Bonser-Neal et al. (1990). Prior to estimating Equation (1), the fund's discount changes are adjusted to remove any dividend/capital gains payment announcement effect and ex-dividend/capital gains effect. The details of the adjustment procedure are discussed in Appendix B of Bonser-Neal et al. (1990). Four discount changes are adjusted because they cover dividend announcement and ex-dividend periods. The adjusted discount change series has about the same mean though slightly higher standard deviation than the unadjusted discount change series. The mean of the adjusted discount change series is -0.030 compared to -0.033 for the unadjusted series. The standard deviation of the adjusted discount change series is 3.035 compared to 2.998 for the unadjusted series. We also estimate Equation (1) using the unadjusted discount changes but there is a very minor difference in the results compared to those reported in this paper.

17 Bonser-Neal et al. (1990) and Bodurtha et al. (1995) argue that the positive cross-

correlations in the price and NAV of country funds could be an artifact of nonsynchronous SP and NAV measurements due to the timing differences between the foreign country stock market and the NYSE. As mentioned earlier, there is a 17-hour difference between the Philippine Stock Exchange close and New York's close. This might introduce a bias in the results if the event window is confined to the announcement week. The potential for bias can be illustrated as follows. As discussed in the Theoretical Framework, *ceteris paribus*, the introduction of binding restrictions will increase a country fund's price-to-NAV ratio above the level prevailing in the absence of such restrictions by approximately the amount the investor is willing to pay to avoid the restrictions. For example, the Philippine government announces a relaxation of its foreign investment restrictions. Since the removal of investment barriers that reduces the cost for the U.S. investor of directly holding Philippine equities will reduce the required return on the fund's underlying assets relative to the required return on the fund's shares, the price and NAV of the FPF will rise in response to the announcement. If the prevailing restrictions prior to the announced liberalization are binding, the fund's price-NAV ratio will fall; i.e., the fund's premium decreases or the discount increases. However, if NAVs are reported with some lag, the fund's price will change before its NAV changes and the fund's premium will rise (discount will decrease) in the announcement week. The decrease in premium (or increase in discount) would only become evident the following week, when both the fund price and its NAV would have completely adjusted.

18 The sample autocorrelations of the first 6 lags of the changes in percentage discounts for the FPF are -0.19, -0.07, -0.12, -0.03, -0.03 and 0.01, respectively. The first- and third-order autocorrelation coefficients are found to be significant at the 0.05 level while coefficients at higher-order lags are all insignificant. These suggest that the residuals of regression model (1), as well as the other models considered in this study, are likely to be serially correlated. The pattern of the regression models' sample residual autocorrelations confirms our initial diagnostics. For Equation (1), the sample residual autocorrelations for the first 6 lags -0.20, -0.05, -0.14, 0.00, -0.05, and 0.03. Only the first- and third-order autocorrelation coefficients are significant at the 0.05 level. The higher-order (beyond the sixth-order) autocorrelation coefficients are all statistically insignificant. The sample residual autocorrelations for the first 6 lags of Equations (2) and (3) and their significance are identical to those of Equation (1). Likewise, the higher-order sample autocorrelation coefficients of Equations (2) and (3) are all statistically insignificant. It is also possible that, as a result of the various liberalization announcements, the fund's discount changes may not be homoscedastic. Consequently, we employ a heteroscedasticity and autocorrelation consistent estimate of the variance-covariance matrix of the OLS estimates based on the procedure proposed by Newey and West (1987).

19 The results of using longer pre- and post-announcement windows are not very much different from those reported here.

20 In fact, among the 10 publicly traded banks in 1991, only one bank (Rizal Commercial Banking Corporation) has an "A" share - "B" share classification. The rest had unclassified shares.

- 21 Under the new rules and regulations covering foreign investments in Central Bank-approved securities, any proceeds from an investment may be temporarily deposited in a bank prior to repatriation, and any interest earned on the deposit can automatically be remitted without further registration (Euromoney 1996). Also, transactions related to foreign investment in Central Bank-approved securities can now be settled in three to four days (Lambert and Llanto 1995).
- 22 An anonymous referee argued that it is also possible that the prior restrictions may have been viewed by U.S. investors as ineffective because of the administrative weaknesses and monitoring inefficiencies in the regulatory agencies of the Philippine government such as the Central Bank. These flaws in the supervisory and regulatory mechanisms were exposed during the Asian financial crisis that commenced in July 1997. We feel that this is a very valid argument. However, we don't think that this is the prevailing view among foreign investors during our sample period that covers the year 1989 to 1995. In fact, almost all investment guides and other publications that analyze the foreign investment environment in the Philippines that we have surveyed emphatically stress on the previously mentioned restrictions to international investments in the country and create an impression among potential foreign investors of the seriousness of such restrictions. These publications mostly cater to foreign investors and are published abroad (see e.g., George 1991; Rodrigo 1993; Hinkelman 1996; and Euromoney 1996). For example, Euromoney (1996) reports that "The Philippines has benefited from the large amounts of investment recently directed towards emerging markets in general and towards south-east Asia in particular. While the Philippine government has welcomed this interest in the country, it has maintained rigorous reporting and regulatory controls over foreign funds. This ensures that the government is aware of where investment is being directed and that it would be forewarned if the inflow were to reverse."
- 23 For example, Bonser-Neal, et al. (1990) find the effect of aggregate announced regulatory changes to be insignificant in the case of the Taiwan Fund.
- 24 "Generally, the Bangko Sentral Registration Document (BSRD) is issued by a custodian bank for investments in approved government/listed securities. To purchase foreign currency from the custodian bank for repatriation of the investment proceeds, a broker's sales invoice must be presented. If the foreign currency is purchased from a different bank, the investor must ask the custodian bank to provide a BSRD letter advice, which authorizes the remitting bank to use all or part of the BSRD. This process is inefficient, manually time-consuming and paper intensive. Frequently the bank that is selling the foreign currency for repatriation must delay payment, as it does not receive the BSRD from the custodian bank. The custodian bank may not be able to provide the BSRD as it is awaiting a certificate of inward remittance from the bank that originally sold pesos to the investor. Remittances of cash dividends must be accompanied by a schedule showing the names and addresses of the investor, the BSRD of the securities involved, and the gross- and after-tax amounts of the dividend, as well as a board resolution declaring the dividend." (Euromoney 1996).



## **Appendix A: Chronological Listing of Announcements of Changes in Philippine International Investment Restrictions**

**10/14/94.** The entry of foreign banks to operate in the Philippines was liberalized (Circular No. 51). Such entry can be effected through a purchase of 60 percent of the voting stock of an existing domestic bank or of a new banking subsidiary incorporated in the Philippines or through the establishment of branches with full banking authority, subject to the licensing requirements of the Central Bank. For a foreign bank branch (new or already established), permanently assigned capital of the dollar equivalent of P210 million (converted at the exchange rate of P26.979 per US\$1 - the rate prevailing on June 5, 1994) must be remitted and converted into pesos, which will allow for the establishment of three branches. For each three additional branches to be opened, the U.S. dollar equivalent of P35 million must be remitted. (IMF 1995): Direct investment, loosening, capital inflows.

**6/22/94.** President Fidel Ramos opened the Philippine economy wider to overseas businesses. The executive order is part of a foreign-investment liberalization that takes effect Oct. 24. Non-Filipinos will be able to own businesses in many sectors that now are restricted to 40 percent foreign ownership. Foreigners will be allowed to operate in areas such as insurance, travel agencies, wholesale trading, convention organizing, manufacturing under foreign licenses, and cockfighting. The easing isn't expected to affect the economy much initially, but it underscores Mr. Ramos's determination to increase competition in protected areas, despite small companies' claims of hardship. The National Economic and Development Authority said that 'adequate capacity' is not a sound basis for excluding foreign investments in a particular sector. It said restricting competition benefits high-cost producers at consumers' expense. (WSJ 6/23/94): Direct investment, loosening, capital inflows.

**8/10/92.** The Philippines will scrap most remaining foreign-exchange restrictions. Businesses and analysts welcomed the move but urged further deregulation of trade and foreign-investment policies. President Fidel Ramos said the measures, the second stage of an overhaul launched late the last year, will remove requirements that exporters sell their foreign-exchange earnings to banks. Under the package expected to take effect this month, Philippine residents may borrow as much as \$1 million from banks for

investment abroad without central bank approval and may hold overseas deposits. Gold imports won't require central bank authorization and most gold exports will be allowed. The first stage, widely considered incomplete, required 15 types of enterprises, ranging from airlines to oil companies and including most foreign-exchange earners, to sell almost all these earnings to banks for resale to the central bank. The latest move encouraged businesses, which said it removed psychological blocks to investment and could encourage Filipinos abroad to repatriate more earnings. (WSJ 8/11/92): Foreign exchange accounts, loosening, capital outflows.

**1/3/92.** Central Bank of the Philippines issued rules/regulations liberalizing nontrade foreign exchange transactions, including investment related transactions. With respect to foreign investments, the major policy changes entailed the broader coverage of foreign investments, the liberalization of repatriation and remittance privileges and the reduction as well as simplification of reportorial and documentary requirements. Under CB Circular No. 1318, foreign investments are defined to include investments by a resident in foreign exchange or its equivalent in assets actually brought into the country, as contrasted to the definition under the Foreign Investments Act of 1991, which considers the nationality or citizenship of the investor. Full and immediate repatriation and remittance privileges for all types of duly registered investments, whether as direct equity or in listed shares/securities and regardless of the type of industry or sector where investment were made are now allowed to be directly serviced by AABs [Authorized Agent Banks which include all categories of banks (except offshore banking units) duly licensed by the Central Bank] without prior CB approval. This is in contrast to previous guidelines where full and immediate repatriation was allowed only for registered investments in CB-certified export-oriented industries and in CB-approved securities, but is otherwise staggered for investments in other industries from three to nine years, depending on the type of industry and sectoral priority where investments were made. However, under Section 40 of Circular No. 1318, repatriation of investment financed through the debt-to-equity program under Circular No. 1111 dated August 26, 1986, Revised Circular No. 1111 dated October 20, 1982 and Circular No. 1267 dated December 20, 1990, shall be governed by said Circulars or any subsequent amendments thereto. (IMF 1993, WSJ 1/7/92): Foreign exchange accounts, loosening, capital outflows.

**6/6/91.** The Philippine Congress approved a bill allowing foreigners to own as much as 100 percent of most businesses in the country, now limited to 40 percent. The measure, to be signed into law in November, is also aimed at generating jobs for Filipinos. Separately, Manila will seek to borrow \$100 million from the Asian Development Bank for relending to small and medium industries. Meanwhile, the government will probably shed 80 percent of its holding in Philippine Airlines in a single phase this year instead of gradually. (WSJ 6/7/91): Direct investment, loosening, capital inflows. (note: need updating)

### **Appendix B: Percentage Distribution of the Net Assets of the First Philippine Fund<sup>a</sup>**

	As of 6/30/1991	As of 6/30/1992	As of 6/30/1993	As of 6/30/1994	As of 6/30/1995
In common stocks of firms in:					
Banking	2.0	7.0	8.0	10.5	16.4
Telecommunications	18.7	22.8	14.6	16.1	13.3
Food and Beverage	12.0	17.4	18.6	22.7	21.2
Conglomerates	0.2	8.6	8.0	8.2	11.3
Electric Utilities	Nil	7.0	11.6	14.5	12.7
Real Estate					
Development	3.2	6.8	10.0	8.6	10.9
Other	19.8	9.9	16.4	12.8	10.4
<b>Total Common Stocks</b>	<b>57.3</b>	<b>83.2</b>	<b>87.2</b>	<b>93.4</b>	<b>96.2</b>

<sup>a</sup> Net assets are based on market value.

Source: Standard & Poors NYSE Stock Reports (1991-1995)