

MEMORANDUM

To: Ms. Tracey Ray
Federal Retirement Thrift Investment Board

From: Satya Kumar, CFA
Russ Ivinjack
Neeraj Baxi, CFA

Date: September 28, 2006

Re: Safety of Assets in C, S, I, and F Funds

Introduction

The Federal Retirement Thrift Investment Board (FRTIB) was interested in understanding the internal controls that exist at Barclays Global Investors (BGI) and its sub-custodian, Investors Bank & Trust (IBT), to prevent an unauthorized use of the assets in the C, S, I, and F Funds. Specifically, the FRTIB was interested in knowing whether BGI and/or IBT could hypothecate the securities held on behalf of the Thrift Savings Plan (TSP) and whether there are any means by which either BGI or IBT could derive revenue from the TSP's investments other than investment management fees and securities lending income.

Structure of TSP's Investments

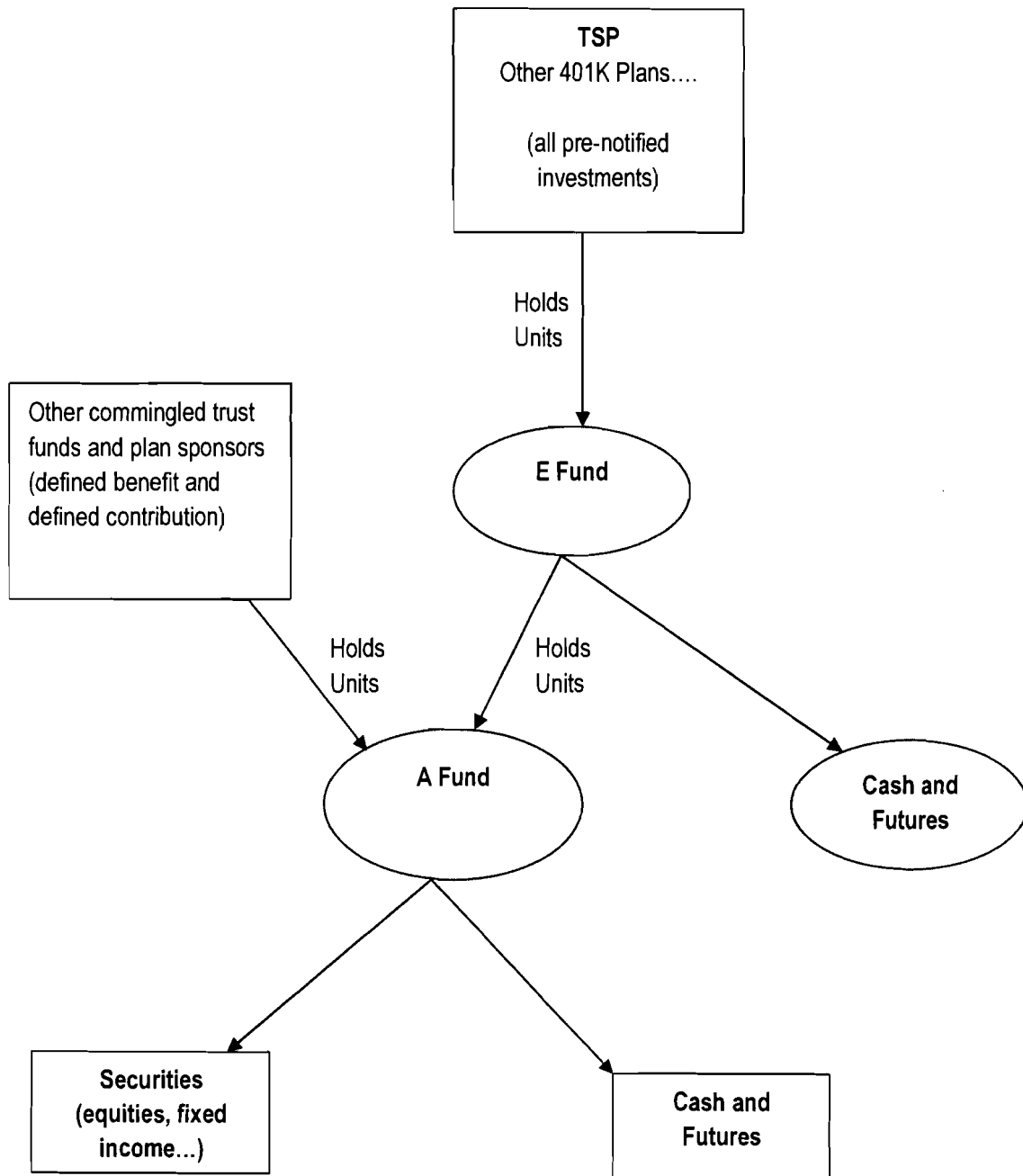
In order to address this issue, it is useful to review the structure and ownership of the TSP's investments. The C, S, I, and F Funds invest their assets in individual commingled trust index funds at BGI that correspond with the benchmark of the TSP investment option. The funds which the TSP invests in are referred to as the E Funds at BGI. The E Funds comprise, in addition to the TSP's assets, investment of other pre-notified defined contribution plans.

The E Funds hold units (shares) of another commingled trust fund referred to as the A Fund at BGI. In addition to the units of the A Fund, the E Fund will also hold cash and futures positions to meet redemptions and to maintain appropriate exposure to the relevant market.

The A Funds comprise investments from the E Funds, investments from other collective trust funds managed by BGI for retirement plans (defined benefit and defined contribution), and direct plan sponsor investments (defined benefit and defined contribution).

The A Fund owns securities (equities and fixed income) that track the relevant index. Like the E Fund, the A Fund holds, in addition to the securities investment, cash and futures positions to meet redemptions and manage market exposure. The underlying securities in the A Fund are held in a custody account at IBT, BGI's sub-custodian.

Hence the TSP does not directly own securities that comprise the relevant benchmark index, but rather owns units (shares) in a commingled trust fund, which indirectly owns the underlying securities. The investment structure may be best explained by the following schematic.



Custodian/Sub-custodian

While the securities that underlie each index fund are physically held in custody in an account at IBT, BGI remains the named custodian of the funds. The assets held by the commingled trust funds are the fiduciary assets of BGI, and cannot be subject to the claims of any creditors of BGI.

Ability to Pledge/Hypothecate Holdings

The units of the BGI commingled trust funds, such as the E Fund and the A Fund, are book keeping entries that ultimately represent pro-rata ownership of underlying securities. Given that the units in the commingled funds are entries that are accounting transactions by nature, they do not represent securities that can be pledged.

The securities that are ultimately owned by the commingled fund, essentially those owned by the A Fund, represent securities that can be pledged. BGI, as a trustee of the commingled trust fund, from time-to-time pledges the trust's holdings as part of its fiduciary responsibility in managing the funds. These circumstances generally relate to pledging securities against the purchase of futures to equitize cash balances and/or accrued income. In such circumstances, the securities belonging to the commingled fund are placed with a counterparty broker as margin money on behalf of the commingled fund.

Given that there are opportunities to pledge/hypothecate the individual securities held by the commingled trust fund (A Fund), it is important to understand the controls that exist to prevent unauthorized transactions.

Controls Relating to Futures Leverage

On a daily basis, BGI's cash management system computes the net exposure gained from all futures positions held in a portfolio. This is compared to the available cash and/or accrued income that the futures are used to equitize in order to ensure that the levels of cash equitization are appropriate, and that no leverage is gained through the use of futures positions. Each fund's portfolio manager determines the level of futures that should be maintained based on a review of the information generated by the cash management system, and accordingly initiates a trade in a futures position. All futures trades and positions are reviewed by a supervisor prior to execution of a trade. In addition, only designated portfolio managers are authorized to initiate futures transactions.

Controls Relating to Movement of Securities

BGI has instituted internal controls to ensure that no one individual or group has complete control over any one transaction. Key amongst these is a separation between the implementation and the operations functions. By implementation, we refer to activities such as portfolio management, trading, and securities lending, which relate to the management of clients' investments. By operations, we refer to activities such as accounting, trade confirmation, valuation, reconciliation, and performance measurement, which are critical to completing the transactions initiated by the implementation function. A separation of these key functions ensures that different individuals and groups that report to different business unit heads within the organization are involved in the

execution of any one single transaction. Each of these functions independently, and the process more broadly are monitored for exceptions by their internal control system.

Movements in underlying securities held by the commingled funds are initiated through standardized electronic messaging protocols. The movement of securities from the commingled funds need to be approved by various individuals within IBT and BGI who perform various functions across the trade spectrum – such as trade operations, trade settlement, reconciliations and fund accounting. There are various reconciliations between these functions both within BGI and IBT, and between them on a daily basis. The reconciliations would bring to light any unauthorized transactions.

As such, the levels of controls within BGI and IBT individually, and between the two organizations prevents the likelihood of any unauthorized transaction activity. While the likelihood of initiating an unauthorized transaction cannot be completely ruled out, in order to be successful, it would require collusion between various individuals at different levels of both BGI and IBT.

Given the structure of the internal control processes and the compliance systems that monitor these processes, we feel confident that the systems would detect and prevent any unauthorized transactions. We do not believe that either BGI or IBT would be able to use the securities in the A Fund to derive any revenue other than securities lending income, unless they were able to use the assets as collateral in a transaction. As discussed, we believe that adequate procedures exist to prevent any unauthorized use of the assets.

Summary

Based on our extensive due diligence on BGI during the review of candidates that led to their selection as the index fund provider for the TSP, and our onsite visit with BGI's senior management on September 13, 2006, we believe that their internal control procedures and processes are well designed and geared to ensure proper compliance with their fiduciary responsibility. In further researching the issue on whether BGI or IBT can pledge or hypothecate the assets or use them to derive revenues other than securities lending and investment management income, we are reassured that the internal control systems and procedures would prevent and detect any unauthorized transactions in securities owned in the commingled funds. As such, we do not believe that BGI or IBT is able to pledge the assets owned by the Funds, other than as part of managing the Funds, and are also not able to derive any revenue from these assets other than securities lending or investment management income.