

## MEMORANDUM

**To:** Ms. Tracey Ray  
**Federal Retirement Thrift Investment Board**

**From:** Satya Kumar, CFA  
Russ Ivinjack  
Neeraj Baxi, CFA  
Sudhakar Attaluri, PRM (Professional Risk Manager)

**Date:** September 28, 2006

**Re: Due Diligence Risk Overview with Barclays Global Investors**

### Introduction

The Federal Retirement Thrift Investment Board (FRTIB) issued a request for proposal (RFP) seeking candidates to offer investment advisory and management services for the four index funds, the C, S, F and I Funds, currently offered to its participants in the Thrift Savings Plan (TSP). The candidates were scored in accordance with predefined guidelines, which resulted in the selection of Barclays Global Investors (BGI) as the investment manager for all four funds.

As part of the due diligence process, Ennis Knupp + Associates (EnnisKnupp) in conjunction with Tracey Ray, FRTIB's Chief Investment Officer, conducted a meeting with the senior management of BGI at their headquarters in San Francisco, CA on September 13, 2006. Our meetings focused on understanding and evaluating the corporate governance procedures, risk management practices, and oversight procedures of BGI as an organization – and thereby their appropriateness as a service provider to the Thrift Savings Plan, rather than an evaluation of any of the funds specifically, which was covered exhaustively during the evaluation of candidates that led to the selection of BGI.

Based on our discussions with BGI and our understanding of their internal control policies, corporate governance initiatives, and risk management and oversight procedures, we are comfortable with the FRTIB selecting BGI as the index fund provider for the C, S, F, and I Funds. The firm has a well thought through and clearly defined risk management and oversight process that encompasses all functions within its different businesses.

### **Organizational Background and Ownership**

BGI, headquartered in San Francisco, CA, is an indirect subsidiary of Barclays Bank PLC, which is owned by Barclays PLC, a publicly listed holding company based in London, England. Barclays Bank PLC, through its subsidiary BGI UK Holdings LTD, owns 80% of BGI. The remaining 20% of BGI is available to be granted to key employees of the organization through a stock option plan. BGI informs us that the shares are owned by roughly 200 employees and approximately 14% of the options have been exercised. We believe that the share ownership plan is in the long-term interest of the organization as it aligns the interests of key employees with those of the organization.

BGI has internal capital of at least \$250 million and is also backed by the financial strength of Barclays PLC, which has approximately GBP 900 billion in assets and is a AA rated entity. BGI has managed index funds for 35 years and currently has \$1.6 trillion in assets under management, of which \$1.1 trillion are indexed assets.

### **Fund Structure**

BGI accepts the role of a fiduciary in managing the C, S, F, and I funds. Each of the funds have written guidelines that clearly outline the investment philosophy and objective, acceptable level of risk, permissible and non-permissible investments, policies regarding the use of derivatives, benchmark for performance comparison, policies on voting proxies, policies and procedures relating to trading, etc.

Each of the pooled investment funds managed by BGI are audited on an annual basis by an external, independent auditor. The assets held in the commingled trust funds are fiduciary assets of BGI, which are separate and distinct from the general assets of the firm, and cannot be subject to claims by creditors on the firm.

### **Organization Structure & Intellectual Talent**

BGI has a well defined organizational structure with each business unit headed by an individual that reports to the firm's Chief Executive Officer (CEO). In addition, support functions such as technology, human resources, legal report to the firm's Chief Operating Officer (COO), who in turn reports to the CEO.

The business unit heads are responsible for developing succession plans for their respective groups. Succession plans are reviewed twice a year by BGI's Global Executive Committee, which includes the firm's Chairman, CEO, and COO, and is tasked with executing the firm's strategic agenda. BGI has appropriate programs in place to ensure that key individuals identified within the succession plans are provided with appropriate professional and personal development opportunities.

BGI has also initiated a formal leadership development process, wherein professionals from different businesses across the world are identified as future leaders or managers. These individuals undergo a formal training process which includes, in addition to necessary educational development opportunities, exposure to different professional functions within the organization. This process ensures that the next generation of managers and leaders within the firm are well seasoned and have the necessary professional and educational backgrounds to perform their functions.

All of BGI's investment strategies and related functions, such as trading, research, etc. are managed by a team rather than any one single individual. The management of the strategies has been developed such that professionals are engaged in multiple strategies and funds.

In order to attract and retain talent, the firm compensates professionals at levels that it believes are the median for the industry. BGI also rewards employees with bonuses on an annual basis, which are determined by firm performance, performance of the business line, and individual employees' contribution. After accounting for bonuses, BGI reckons that employees that contribute significantly to the organization get compensated within the top quartile of industry norms. In addition to a base compensation, all professionals also receive benefits, which BGI believes are comparable or better than the industry norm. These include, but are not limited to, retirement savings plans, health insurance, and educational expense reimbursement.

In our opinion, the firm has among the deepest talent of investment professionals and is unlikely to be impacted by the departure of one or several professionals.

### **Trading**

The trading function at BGI is separate and distinct from the portfolio management function. To facilitate their trading process, BGI has made significant investments in order management and trading platforms. All trade lists issued by portfolio managers are verified for conformance with fund guidelines before transmission to the trading desk. While BGI has an affiliated broker/dealer, Barclays Global Investors Services (BGIS), no trading with respect to any of the funds managed by BGI is routed through BGIS. Further, BGIS acts in an agency-only capacity to serve the needs of its transition clients and does not execute any principal or proprietary trades. BGI does not participate in any soft dollar or directed brokerage trading, and all trading activity is focused on obtaining best execution.

### **Custody**

While BGI is the named custodian for the funds that it manages, it utilizes the services of an independent custody bank, Investors Bank and Trust (IBT), as its sub-custodian. IBT does not offer any investment management products and their sole focus is providing securities processing services to clients such as BGI. IBT maintains an office in Sacramento, CA to primarily service the needs of BGI. BGI has had a successful working relationship with IBT since 2001. Prior to hiring IBT as a sub-custodian in 2001, BGI handled the custody of its funds internally. When BGI hired IBT as the sub-custodian, many BGI executives that were responsible for custody-related functions were hired by IBT – most of the employees that were hired by IBT from BGI remain with IBT today.

BGI recently renewed its contract with IBT for custody of its funds through 2013. In making a decision to renew the contract, BGI evaluated various metrics to measure the level of service and satisfaction, including the timeliness and accuracy of pricing of the funds, timeliness and accuracy of performance measurement, and settlement of trades.

BGI notes that IBT has not been a party to any proceedings initiated by the SEC, IMRO, DOL, IRS NASD, or any other regulatory body alleging violation of any laws or regulations.

### **Legal**

BGI has an internal legal team comprising 19 professionals that is routinely involved in legal and regulatory activities relating to the firm and the funds that it manages – such as working with regulators on routine audits, filing for exemptions with DOL and other regulatory authorities. The group is also responsible for conducting regular training of internal executives on fiduciary issues and laws.

BGI notes that it has not faced any litigation in its fiduciary capacity as an investment advisor. While the firm is routinely audited by various regulators as part of standard industry audits, the firm has not been subject to any proceedings initiated by the SEC, IMRO, DOL, IRS NASD, or any other regulatory body alleging violation of any laws or regulations.

### **Employee Trading Rules**

BGI's employees' 401(K) Plan primarily comprises collective fund options managed by BGI. All employee transactions relating to investments in their 401(K) Plan are done on a pre-notified basis – i.e., the notification of the transactions should be provided to the Plan's recordkeeper one day before the trade. This eliminates the possibility of any market timing activities by employees in the funds managed by BGI. Employees (and direct relatives) are required to seek approval from pre-designated individuals within the organization with respect to any trades in individual securities. BGI also institutes a trading window with respect to employee trading – individual securities must be held for a specific length of time before they are sold. BGI also offers a brokerage option within its 401(K) Plan, which is offered through Charles Schwab. In order to enhance monitoring of employee trading activities, BGI has established electronic links with Charles Schwab, a broker that is recommended to employees. They inform us that most of their employees conduct their personal trading through Charles Schwab, but to improve the process of monitoring and also allow their employees the flexibility to use their own brokers they are in the process of developing electronic links with most major brokers.

### **Disaster Recovery Plans**

BGI has pre-established procedures to handle interruptions to their business on account of any type of disasters – these include pre-designated recovery teams, pre-established plans and procedures to handle the firm's response to a disaster, pre-defined plans and processes with respect to the functions of the business groups and of the firm's technology, and pre-established communications strategies and tools.

The firm has dual back-up data centers – one in an independent location in San Francisco, CA, and the other in Rancho Cordova, CA. The facility at Rancho Cordova also serves as the firm's work area recovery center and can accommodate around 150 personnel. The firm conducts tests of its disaster recovery process on an annual basis.

### **Oversight and Internal Controls**

As a private corporation, BGI is not bound to have independent directors on its Board of Directors. BGI, however, has an independent Audit Committee within the Board of Directors that comprises three individuals that are not executives of BGI.

BGI has an internal audit group comprising of over 150 professionals that is responsible for routine monitoring and evaluation of internal control systems and processes. In addition to reporting to the COO of BGI, the group also reports directly to the independent Audit Committee of BGI's Board and to the internal audit group at Barclays PLC, the parent company.

Each business within BGI has its own risk management function, which reports up to the firm's COO through the CEO of the business unit. In addition, BGI has a global risk and compliance group that is responsible for monitoring, measuring, and reporting on operational risk, credit and market risk, and compliance. The risk management policies of the organization are approved by the Board of Directors. The firm conducts routine assessment of its risks by identifying key risks across business segments, measuring and verifying appropriate levels of risk capital, and ensuring that key controls to mitigate risks operate as planned.

The firm's technology has multilayered security that prevents unauthorized access to information. The technology environment ensures appropriate segregation of duties between key functions such as portfolio management, operations, and other client facing activities.

BGI is in the process of becoming compliant with the Basel II Accord, which seeks for better alignment of a bank's regulatory capital with the current and future risks that they could face. Being a private corporation, 2006 is the first year that BGI needs to file a Sarbanes Oxley compliance report, and is in the process of doing so.

The firm's compliance monitoring procedures appear thorough, and are routinely verified by external auditors in addition to periodic internal reviews. The risk management and oversight group appears well staffed and resourced. The group has a direct reporting line to the independent Audit Committee of the Board of Directors. Key operational controls that would be expected within an investment management organization are well documented and appear to be functioning smoothly. These include, but are not limited to, the separation of functions between the securities lending group and the group that approves the borrowers to whom securities may be lent; procedures relating to modifications to technology source codes and restriction on professionals that can approve and initiate such changes, separation of duties between trading and portfolio management, restrictions on employee trading. On the whole, we find that the systems and processes work well at the organizational level and that no one individual is critical to any process.

### **Summary**

As one of the world's largest investment managers, BGI's processes and philosophies relating to corporate governance, risk management, and oversight, and their committed approach to their fiduciary responsibility, in our opinion, constitute best practices within the investment management industry.

The firm has a well defined organization structure and has initiated suitable succession planning initiatives across all businesses and key functions. The firm invests significantly in its human talent and has one of the deepest benches of investment professionals across the industry. In our opinion, the firm is unlikely to be impacted by the departure of one or several of its key professionals.

The firm has detailed plans and processes to respond to disasters, including dual data backup locations and a work area recovery site in the event of a disaster. The contingency plans are tested routinely and we have been informed that the tests have been successful.

BGI has well structured internal control processes for an organization its size and these controls appear to be functioning effectively. Compliance monitoring procedures are routinely reviewed by the firm's internal audit group, in addition to routine verifications by external auditors. As such, we find that the systems and processes work well at the organizational level and that no one individual is critical to any process.

Given our understanding of BGI's corporate governance procedures, risk management practices and oversight procedures, and our belief that the internal practices followed by BGI constitute best practices within the investment management industry, we are comfortable with the FRTIB selecting BGI as the index fund provider for the C, S, F, and I Funds.