



Audit Report



OIG-12-073

Report on the Bureau of the Public Debt Federal Investments Branch's Description of its Investment/Redemption Services and the Suitability of the Design and Operating Effectiveness of its Controls for the Period August 1, 2011 to July 31, 2012

September 19, 2012

Office of Inspector General

Department of the Treasury



DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

OFFICE OF
INSPECTOR GENERAL

September 19, 2012

**MEMORANDUM FOR VAN ZECK, COMMISSIONER
BUREAU OF THE PUBLIC DEBT**

FROM: Michael Fitzgerald
Director, Financial Audits

SUBJECT: Report on the Bureau of the Public Debt Federal
Investments Branch's Description of its
Investment/Redemption Services and the Suitability of the
Design and Operating Effectiveness of its Controls for the
Period August 1, 2011 to July 31, 2012

I am pleased to transmit the attached Report on the Bureau of the Public Debt (BPD) Federal Investments Branch's Description of its Investment/Redemption Services and the Suitability of the Design and Operating Effectiveness of its Controls for the period August 1, 2011 to July 31, 2012. Under a contract monitored by the Office of Inspector General, KPMG LLP, an independent certified public accounting firm, performed an examination of the description of controls, the suitability of the design and the operating effectiveness of the general computer and investment/redemption processing controls used for various Federal Government agencies' (Fund Agencies) transactions for the period August 1, 2011 to July 31, 2012. The contract required that the examination be performed in accordance with generally accepted government auditing standards and the American Institute of Certified Public Accountants' Statement on Standards for Attestation Engagements Number 16, *Reporting on Controls at a Service Organization*.

In its examination, KPMG LLP found in all material respects:

- the *Description of Controls Provided by the BPD* fairly presents the general computer and investment/redemption processing controls that were designed and implemented throughout the period August 1, 2011 to July 31, 2012,
- that these controls were suitably designed to provide reasonable assurance that the control objectives would be achieved if the controls operated effectively throughout the period August 1, 2011 to July 31, 2012, and Fund Agencies applied the complementary Fund Agency controls and sub-service

organizations applied the controls contemplated in the design of BPD's controls throughout the period August 1, 2011 to July 31, 2012, and

- that the controls tested, which together with the complementary Fund Agency controls and sub-service organizations' controls, if operating effectively, were those necessary to provide reasonable assurance that the control objectives were achieved and operated effectively throughout the period August 1, 2011 to July 31, 2012.

In connection with the contract, we reviewed KPMG LLP's report and related documentation and inquired of its representatives. Our review, as differentiated from an examination of the description of controls, the suitability of the design and the operating effectiveness of controls in accordance with generally accepted government auditing standards, was not intended to enable us to express, and we do not express, an opinion on BPD's description of controls, the suitability of the design of these controls and the operating effectiveness of controls tested. KPMG LLP is responsible for the attached independent service auditors' report dated September 14, 2012, and the conclusions expressed in the report. However, our review disclosed no instances where KPMG LLP did not comply, in all material respects, with generally accepted government auditing standards.

Should you have any questions, please contact me at (202) 927-5789, or a member of your staff may contact Mark S. Levitt, Manager, Financial Audits at (202) 927-5076.

Attachment

**U.S. Department of the Treasury
Bureau of the Public Debt**

**Federal Investments Branch
General Computer and
Investment/Redemption Processing Controls**

**Report on Federal Investment Branch's Description of Its
Investment/Redemption Services and the Suitability of the Design and
Operating Effectiveness of Its Controls
For the Period August 1, 2011 to July 31, 2012**

**U.S. DEPARTMENT OF THE TREASURY
BUREAU OF THE PUBLIC DEBT
FEDERAL INVESTMENTS BRANCH**

**REPORT ON FEDERAL INVESTMENT BRANCH’S DESCRIPTION OF ITS
INVESTMENT/REDEMPTION SERVICES AND THE SUITABILITY OF THE DESIGN
AND OPERATING EFFECTIVENESS OF ITS CONTROLS**

Table of Contents

<u>Section</u>	<u>Description</u>	<u>Page</u>
I.	Independent Service Auditors’ Report Provided by KPMG LLP	1
II.	Management’s Assertion	5
III.	Description of Controls Provided by the Bureau of the Public Debt	8
	Overview of Operations	9
	Relevant Aspects of the Control Environment, Risk Assessment, and Monitoring.....	14
	Control Environment.....	14
	Risk Assessment.....	14
	Monitoring.....	14
	Information and Communication	16
	Control Objectives and Related Controls	
	<i>The Bureau of the Public Debt’s control objectives and related controls are included in Section IV of this report, “Control Objectives, Related Controls, and Tests of Operating Effectiveness.” Although the control objectives and related controls are included in Section IV, they are, nevertheless, an integral part of the Bureau of the Public Debt’s description of controls.</i>	
	Complementary Fund Agency Controls	18
	Sub-service Organizations	20
IV.	Control Objectives, Related Controls, and Tests of Operating Effectiveness	21
	General Computer Controls	22
	System Software.....	22
	Vendor Software	25
	Program Change Control.....	27
	Physical Access.....	29
	Logical Access	32

Computer Operations	35
Network Performance Monitoring	37
Investment/Redemption Processing Controls	38
Item Processing Security	38
Item Capture.....	39
Confirmations.....	47
Fund Balance Adjustment.....	49
Recordkeeping.....	51
Segregation of Duties.....	53
Interest Calculation and Payments	55
Statement Rendering	59
V. Other Information Provided by Bureau of the Public Debt	62
Contingency Planning.....	63

**I. INDEPENDENT SERVICE AUDITORS' REPORT
PROVIDED BY KPMG LLP**



KPMG LLP
1676 International Drive
McLean, VA 22102

Independent Service Auditors' Report

Inspector General, U.S. Department of the Treasury
Commissioner, Bureau of the Public Debt and the
Assistant Commissioner, Office of Public Debt Accounting

Scope

We have examined the Bureau of the Public Debt (BPD) Federal Investment Branch's (FIB's) description of its general computer and investment/redemption processing controls used for processing Fund Agencies' transactions throughout the period August 1, 2011 to July 31, 2012 (description) and the suitability of the design and operating effectiveness of controls to achieve the related control objectives stated in the description. The description indicates that certain control objectives specified in the description can be achieved only if complementary Fund Agency controls and controls at the sub-service organizations contemplated in the design of BPD's controls are suitably designed and operating effectively, along with related controls at the service organization. We have not evaluated the suitability of the design or the operating effectiveness of such complementary Fund Agency controls or controls at the sub-service organizations.

BPD uses external service organizations (sub-service organizations). A list of these sub-service organizations is provided in Section III. The description in Sections III and IV includes only the control objectives and related controls of BPD and excludes the control objectives and related controls of the sub-service organizations. Our examination did not extend to controls of sub-service organizations.

The information in Section V of management's description of the service organization's system, "Other Information Provided by Bureau of the Public Debt," that describes contingency planning is presented by management of BPD to provide additional information and is not a part of BPD's description of its system made available to Fund Agencies during the period August 1, 2011 to July 31, 2012. Information in Section V has not been subjected to the procedures applied in the examination of the description of the system and of the suitability of the design and operating effectiveness of controls to achieve the related control objectives stated in the description of the system, and, accordingly, we express no opinion on it.

Service organization's responsibilities

In Section II, BPD has provided an assertion about the fairness of the presentation of the description, the suitability of the design and the operating effectiveness of the controls to achieve the related control objectives stated in the description. BPD is responsible for preparing the description and for the assertion, including the completeness, accuracy, and method of presentation of the description and the assertion, providing the services covered by the description, specifying the control objectives and stating them in the description, identifying the risks that threaten the achievement of the control objectives, selecting and using suitable criteria, and designing, implementing, and documenting controls to achieve the related control objectives stated in the description.



Service auditors' responsibilities

Our responsibility is to express an opinion on the fairness of the presentation of the description, the suitability of the design and the operating effectiveness of the controls to achieve the related control objectives stated in the description, based on our examination. We conducted our examination in accordance with attestation standards established by the American Institute of Certified Public Accountants and applicable *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform our examination to obtain reasonable assurance about whether, in all material respects, the description is fairly presented, the controls were suitably designed and the controls were operating effectively to achieve the related control objectives stated in the description throughout the period August 1, 2011 to July 31, 2012.

An examination of a description of a service organization's system and the suitability of the design and operating effectiveness of the service organization's controls to achieve the related control objectives stated in the description involves performing procedures to obtain evidence about the fairness of the presentation of the description and the suitability of the design and the operating effectiveness of those controls to achieve the related control objectives stated in the description. Our procedures included assessing the risks that the description is not fairly presented and that the controls were not suitably designed or operating effectively to achieve the related control objectives stated in the description. Our procedures also included testing the operating effectiveness of those controls that we consider necessary to provide reasonable assurance that the related control objectives stated in the description were achieved. An examination engagement of this type also includes evaluating the overall presentation of the description and the suitability of the control objectives stated therein, and the suitability of the criteria specified by the service organization and described in management's assertion in Section II of this report. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Inherent limitations

Because of their nature, controls at a service organization may not prevent, or detect and correct, all errors or omissions in processing or reporting transactions. Also, the projection to the future of any evaluation of the fairness of the presentation of the description, or conclusions about the suitability of the design or operating effectiveness of the controls to achieve the related control objectives is subject to the risk that controls at a service organization may become inadequate or fail.

Opinion

In our opinion, in all material respects, based on the criteria described in BPD's assertion, (1) the description fairly presents the general computer and investment/redemption processing controls that were designed and implemented throughout the period August 1, 2011 to July 31, 2012, (2) the controls related to the control objectives stated in the description were suitably designed to provide reasonable assurance that the control objectives would be achieved if the controls operated effectively throughout the period August 1, 2011 to July 31, 2012, and Fund Agencies applied the complementary Fund Agency controls and sub-service organizations applied the controls contemplated in the design of BPD's controls throughout the period August 1, 2011 to July 31, 2012, and (3) the controls tested, which together with the complementary Fund Agency controls and sub-service organizations' controls referred to in the scope paragraph of this report, if operating effectively, were those necessary to provide reasonable assurance that the control objectives stated in the description in Section IV were achieved, operated effectively throughout the period August 1, 2011 to July 31, 2012.



Description of tests of controls

The specific controls and the nature, timing, extent, and results of the tests are listed in Section IV.

Restricted use

This report, including the description of tests of controls and results thereof in Section IV, is intended solely for the information and use of the management of BPD, Fund Agencies of BPD's system during some or all of the period August 1, 2011 to July 31, 2012, the U.S. Department of the Treasury Office of Inspector General, the Office of Management and Budget, the Government Accountability Office, the U.S. Congress, and the independent auditors of BPD's Fund Agencies, who have a sufficient understanding to consider it, along with other information including information about controls implemented by Fund Agencies themselves, when assessing the risks of material misstatements of Fund Agencies' financial statements. This report is not intended to be and should not be used by anyone other than these specified parties.

KPMG LLP

September 14, 2012
McLean, Virginia

II. MANAGEMENT'S ASSERTION



Department of the Treasury
Bureau of the Public Debt
Parkersburg, WV 26106-1328

September 14, 2012

KPMG LLP
1676 International Drive
McLean, VA 22102

Ladies and Gentlemen:

We have prepared the description of the Federal Investments Branch (FIB) Investment/ Redemption Processing Controls that use the InvestOne accounting system and FedInvest customer portal which are vendor supplied subsystems of the Government Agency Investment Services System (GAISS) for user entities of the system during some or all of the period of August 1, 2011 through July 31, 2012, and their user auditors who have a sufficient understanding to consider the description, along with other information, including information about controls operated by user entities of the system themselves, when assessing the risks of material misstatements of user entities' financial statements. We confirm, to the best of our knowledge, and belief, that

- a. FIB uses a number of different sub-service organizations for certain transaction processing:

<i>Sub-Service Organization</i>	<i>Description of Services</i>
Federal Reserve Bank of New York	Treasury security price data
U.S. Department of Treasury – Office of Debt Management	Treasury security price data
U.S. Department of Treasury – Financial Management Service	Provides financial and IPAC reports

The description in Sections III and IV includes only the controls and related control objectives of FIB and excludes the control objectives and related controls of the services listed above from the respective service organizations. The criteria we used in making this assertion were that the accompanying description:

- i. presents how the system made available to user entities of the system was designed and implemented to process relevant transactions, including:
1. the types of services provided, including, as appropriate, the classes of transactions processed;
 2. the procedures, within both automated and manual systems, by which those transactions were initiated, authorized, recorded, processed, corrected as necessary, and transferred to the reports prepared for user entities;
 3. the related accounting records, supporting information, and specific accounts that were used to initiate, authorize, record, process, and report transactions; this includes the correction of incorrect information and how information was transferred to the reports prepared for user entities;

4. how the systems captured and addressed significant events and conditions, other than transactions;
 5. the process used to prepare reports or other information for user entities;
 6. specified control objectives and controls designed to achieve those objectives;
 7. controls that we assumed, in the design of the system, would be implemented by user entities, and which, if necessary to achieve control objectives stated in the accompanying description, are identified in the description along with the specific control objectives that cannot be achieved solely by controls implemented by us; and
 8. other aspects of our control environment, risk assessment process, information and communication systems (including the related business processes), control activities, and monitoring controls that are relevant to processing and reporting transactions of user entities transactions.
- ii. does not omit or distort information relevant to the scope of FIB, InvestOne, and FedInvest, while acknowledging that the description is prepared to meet the common needs of a broad range of Government Account Series customers and independent auditors of those entities and may not; therefore, include every aspect that each user entity and its auditor may consider important in its own particular environment.
- b. The description includes relevant details of changes to FedInvest and InvestOne during the period covered by the descriptions.
- c. The controls related to the control objectives stated in the description were suitably designed and operated effectively throughout the period of August 1, 2011 through July 31, 2012 to achieve those control objectives. The criteria we used in making this assertion were that:
- i. The risks that threatened achievement of control objectives stated in the description were identified;
 - ii. The identified controls would, if operating as described, provide reasonable assurance that those risks did not prevent the stated control objectives from being achieved; and
 - iii. The controls were consistently applied as designed, including whether manual controls were applied by individuals who have the appropriate competence and authority.

Very truly yours,



Susan L. Chapman, Director
Division of Federal Investments

III. DESCRIPTION OF CONTROLS PROVIDED BY THE BUREAU OF THE PUBLIC DEBT

OVERVIEW OF OPERATIONS

Treasury Directive 27-02, *Organization and Functions of the Fiscal Services*, dated May 23, 1997, established the Bureau of the Public Debt's (BPD) responsibility to invest, approve schedules for withdrawals, and maintain accounts for the Federal Trust and Deposit Programs as directed by statute, and certify interest rates determined by the Secretary of the U.S. Department of Treasury.

BPD has assigned these responsibilities to the Division of Federal Investments (DFI), with the exception of interest certification, which is assigned to the Debt Accounting Branch. DFI manages two functional areas: Trust Funds Management Branch (TFMB) and Federal Investments Branch (FIB). FIB is responsible for processing investment transactions for 238 Federal funds, authorized by law or the Secretary of the Treasury, that comprise the balances of the Government Account Series (GAS). FIB processes these investment transactions based on direction provided by the Federal agencies, which have programmatic responsibility for the use of the fund balances (the Fund Agencies). FIB employs twelve personnel and processes an average of 584 transactions daily. FIB also performs the following operational duties:

- Analyzes provisions and limitations of public laws relating to investments for each account.
- Establishes and controls the record keeping of Fund Agencies' accounts by receiving and issuing investment documents such as the Request for Investment and Redemption of Securities, Investment Confirmations and Monthly Statements of Account.
- Provides daily and monthly reports to Fund Agencies reflecting account activities and balances.

Prior to February 29, 2012, investment and redemption transaction records were maintained in both paper and electronic form. Subsequent to February 29, 2012, investment and redemption transaction records are maintained in electronic form. Confirmations are available in FedInvest and Monthly Statements of Account are available in FedInvest and are also published on the TreasuryDirect website for retrieval and review by Fund Agencies. FIB maintains and operates the InvestOne accounting system to perform the operational duties stated above. The InvestOne accounting system is a transaction-based accounting system for recording and processing investment security transactions for each of the accounts and provides information to the Public Debt Accounting and Reporting System (PARS) and the Intragovernmental Payment and Collection System (IPAC). The InvestOne accounting system computes daily, monthly, quarterly, semiannual, and annual interest income for each account for each security held. It also calculates amortization, investment discount and premium for investment and redemption transactions, Inflation Compensation Earned on the Treasury Inflation Protected Securities (TIPS), and maintains summary account balances for each account as well as balances by type of security. Fund Agencies use FedInvest, a web-based extension of InvestOne, to enter investment and redemption requests, view transaction information, and obtain confirmations and reports. Internal Fund managers use FedInvest and two additional extensions, Customer Role Management (CRM) and Rate Price Administration (RPA), to process transactions, manage users and accounts, and manage the application of pricing, rates, and pending transactions.

FIB processes investment transactions based on requests from Fund Agencies regarding security type, maturity, and amount. Fund Agencies submit the investment/redemption requests via the Internet using FedInvest. Prior to February 29, 2012, if a Fund Agency could not access FedInvest, the agency submitted the investment/redemption requests via fax, email, or hard copy

form. Subsequent to February 29, 2012, if a Fund Agency cannot access FedInvest, the agency can submit the investment/redemption requests via email. The investment and redemption request processing for Fund Agencies is summarized as follows.

Investment Request Processing

To establish access to FedInvest, the Fund Agency completes a FedInvest Logon-ID Request form and provides the form to a supervisor for approval. The supervisor reviews and approves the form and submits the form to FIB. FIB verifies that the information is complete then emails the IT Service Desk to request that the user be added to Contact Management. Once IT Service Desk notifies FIB that the user has been added to Contact Management, FIB provides the FedInvest Logon-ID Request form to the Division of Systems and Program Support (DSPS) Information System Security Representatives (ISSRs) for user set-up in FedInvest. The Office of Information Technology (OIT) provides the new user with their user ID and temporary password and contacts the user to login to FedInvest with the temporary password, answer security questions, and change the password. FIB then coordinates FedInvest training with the new user. When a FedInvest user is terminated, the Fund Agency uses the same FedInvest Logon-ID Request form as stated above to revoke access and submits the approved form to FIB, who then terminates the user's access.

Fund Agency users access FedInvest using their user ID and password. The Fund Agency user selects the Account Fund Symbol (AFS), date, security type, and investment amount in FedInvest.

Before Prices Loaded – The FedInvest user may enter investment requests before prices are loaded in the system for up to 10 business days in the future except for Zero Coupon Bonds and Special Issue Certificates of Indebtedness. Upon submission of the request, the user receives a confirmation number which is proof to the Fund Agency that their request was accepted. When prices are loaded by the FIB accountant into the InvestOne accounting system, the FIB accountant uses the FedInvest RPA module to load the prices into FedInvest, publish them on the website, and apply the prices to the pending investment transactions. Once the price has been applied to the transaction, it is automatically posted to the InvestOne accounting system evidenced by the replacement of the confirmation number with a memo number on the confirmation available to the user in FedInvest.

After Prices Loaded – The FedInvest user may enter investment requests after prices are loaded except for Zero Coupon Bonds. Since FedInvest interfaces with the InvestOne accounting system, the InvestOne accounting system automatically assigns a memo number and applies the price/rate. A confirmation of results is available in FedInvest to FedInvest users.

Zero Coupon Bond securities – The FedInvest user must enter investment requests by 11:00 am EST. FedInvest sends the request by email to the FIB accountants who forward the request to the U.S. Department of Treasury's, Office of Debt Management (ODM) for pricing. ODM prices the purchase of the Zero Coupon Bond at approximately 12:00 pm EST and forwards the results to FIB by email. The FIB accountant enters the pricing results into the InvestOne accounting system, posts the transaction, and forwards the memo number to the FedInvest user. A confirmation of results is available in FedInvest to the FedInvest user.

Prior to February 29, 2012, FIB received investment requests via fax, email, or hard copy from Fund Agencies if the agency could not access FedInvest. Subsequent to February 29, 2012, FIB may receive investment requests via email from Fund Agencies if the agency cannot access FedInvest. A FIB accountant enters the request into FedInvest or the InvestOne accounting system on behalf of the Fund Agency. Then two FIB accountants compare the transaction confirmation to the investment request to ensure the investment request is recorded accurately,

posted to the correct day, and then digitally stamp the investment request to document their review. A confirmation of results is available in FedInvest to the FedInvest user the same day. On the following business day, a FIB accountant compares the InvestOne report (Prior Day Review) to the investment requests submitted by the Fund Agency to ensure transactions were properly entered into the InvestOne accounting system.

Redemption Request Processing

Fund Agency users access FedInvest using their user ID and password. The Fund Agency user selects the AFS, date, inventory method (First-In First-Out (FIFO) or Specific ID), security type, and redemption amount in FedInvest.

Before Prices Loaded – The FedInvest user may enter Market-based bill, note, bond, and TIPS redemption requests using the FIFO inventory method before prices are loaded in the system for up to 10 business days in the future. Upon submission of the request, the user receives a confirmation number which is proof to the Fund Agency that their request was accepted. When prices are loaded by the FIB accountant into the InvestOne accounting system, the FIB accountant uses the FedInvest RPA module to load the prices into FedInvest, publish them on the website, and apply the prices to the pending redemption transactions. Once the price has been applied to the transaction, it is automatically posted to the InvestOne accounting system evidenced by the replacement of the confirmation number with a memo number that is also on the confirmation available to the user in FedInvest.

After Prices Loaded – The FedInvest user may enter Market-based bill, note, bond and TIPS redemption requests using the FIFO or Specific ID inventory methods after prices are loaded in the InvestOne accounting system and FedInvest. If Fund Agencies have tax lots (a group of the same securities purchased on different dates) and decide to apply the specific identification method rather than the FIFO method to redeem from specific tax lots, Fund Agencies need to select “Specific ID” inventory method to override the InvestOne accounting system default setting of the FIFO method, and enter the principal amount to redeem for each tax lot. Since FedInvest interfaces with the InvestOne accounting system, the InvestOne accounting system automatically assigns a memo number and applies the price/rate. A confirmation of results is available on FedInvest to FedInvest users.

Special Issue par-value securities - Special par-value securities have unique redemption rules that require the InvestOne accounting system to redeem them based on the order of earliest maturity date, lowest prevailing interest rate, and FIFO. The FedInvest user receives a confirmation with a confirmation number and a message that the Redemption rules will be applied in accordance with Treasury Fiscal Policy. The transaction will be pending until after the close of business on the effective date. At close of business (after 3:00 pm EST) on the effective date of the redemption, the FIB accountant uses the FedInvest RPA module to run the Post Par Value Sell Transactions that will process, post, and assign memo numbers to the pending redemption requests in the InvestOne accounting system using the unique redemption rules. A confirmation of results is available in FedInvest to the FedInvest users.

Zero Coupon Bond securities – The FedInvest user must enter redemption requests into FedInvest (by 11:00 am EST) and FedInvest sends an email to the FIB accountants who forward the request to ODM for pricing. ODM prices the redemption of the Zero Coupon Bond at approximately 12:00 pm EST and forwards the results to FIB via email. The FIB accountant enters the pricing results into the InvestOne accounting system, posts the transaction, and forwards the memo number to the FedInvest user. A confirmation of results is available in FedInvest to the FedInvest users.

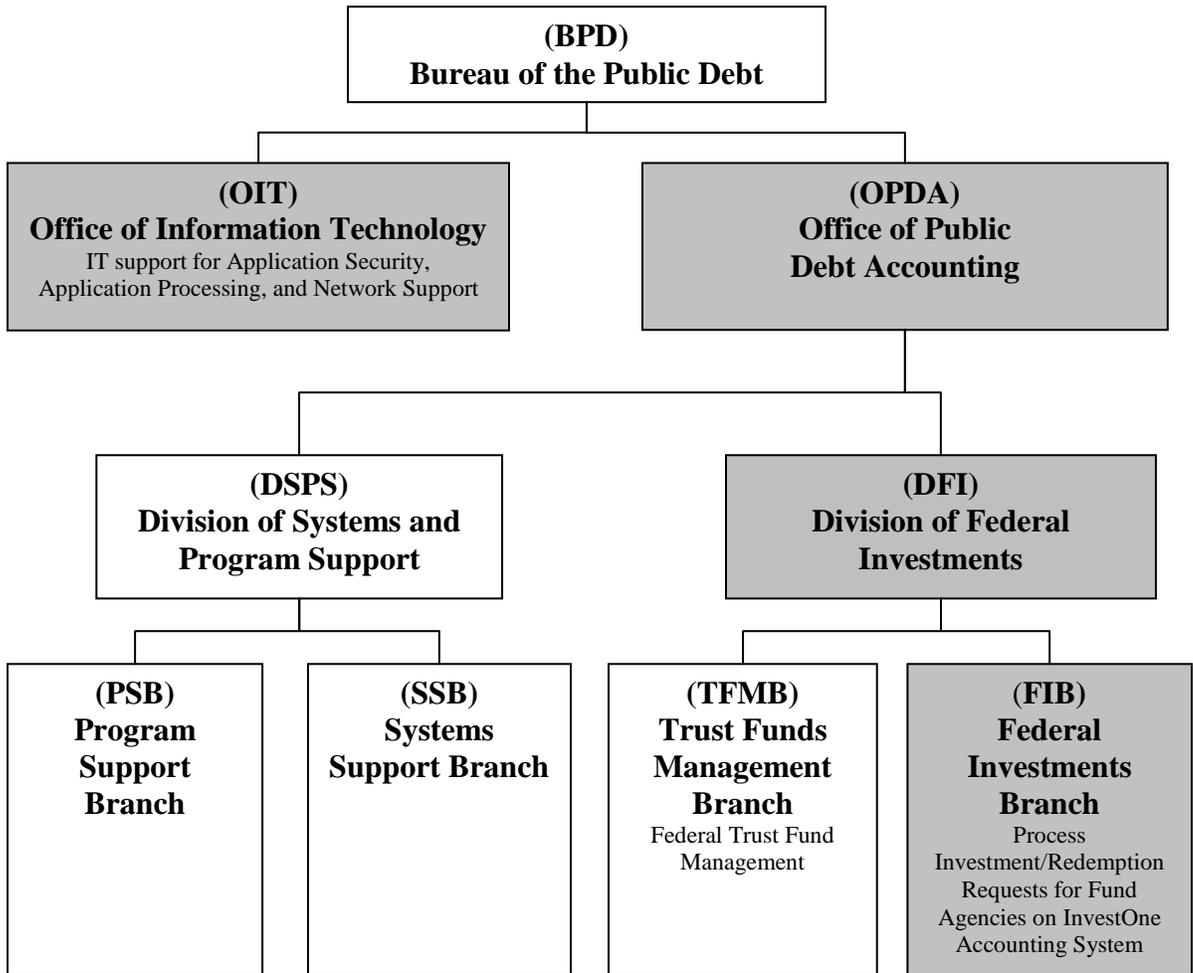
Prior to February 29, 2012, FIB received redemption requests via fax, email, or hard copy from Fund Agencies if the agency could not access FedInvest. Subsequent to February 29, 2012, FIB may receive redemption requests via email from Fund Agencies if the agency cannot access FedInvest. A FIB accountant enters the request into FedInvest or InvestOne accounting system on behalf of the Fund Agency. Then two FIB accountants review and digitally stamp the redemption request. A confirmation of results is available in FedInvest to the FedInvest users the same day. On the following business day, a FIB accountant compares the InvestOne report (Prior Day Review) to the redemption requests submitted by the Fund Agency to ensure the transactions were properly entered into the InvestOne accounting system.

FIB obtains and applies open market prices for securities negotiated by brokers and dealers of government securities from the U.S. Department of the Treasury's ODM and the Federal Reserve Bank (FRB) of New York.

FIB functions do not encompass monitoring or determining rates, types and maturities of government marketable securities. The Office of Information Technology (OIT) provides application security (including passwords), processing, and report programming support to FIB including regular maintenance programming and user-requested program enhancements.

The in-scope BPD functions are shaded in the following organizational chart.

ORGANIZATIONAL CHART



RELEVANT ASPECTS OF THE CONTROL ENVIRONMENT, RISK ASSESSMENT, AND MONITORING

Control Environment

Operations are primarily under the direction of the Office of the Director of the Division of Federal Investment (DFI) and the Director of the DSPS, which represent the functional areas listed below:

- *Administrative development:* Coordinates various aspects of FIB operations. Identifies areas requiring internal controls and implements those controls. Performs systems planning, development, and implementation. Reviews network operations and telecommunications and performs disaster-recovery planning and database administration.
- *Fund support:* Supports end users (Fund Agencies) in all aspects of their use of the application system including research and resolution of identified problems.
- *Operations:* Manages daily computer operations, production processing, report production and distribution, and system utilization and capacity.

The DFI and DSPS hold bi-weekly management meetings to discuss special processing requests, operational performance, and the development and maintenance of projects in process. Written position descriptions for employees are maintained. The descriptions are inspected annually and revised as necessary.

References are sought and background, credit, and security checks are conducted for all BPD personnel when they are hired. Additional background, credit, and security checks are performed every three to five years. The confidentiality of Fund Agency information is stressed during the new employee orientation program and is emphasized in the personnel manual issued to each employee. BPD provides a mandatory orientation program to all full time employees and encourages employees to attend other formal outside training.

All BPD employees receive an annual written performance evaluation and salary review. These reviews are based on goals and objectives that are established and reviewed during meetings between the employee and the employee's supervisor. Completed appraisals are reviewed by senior management and become a permanent part of the employee's personnel file.

Risk Assessment

BPD has placed into operation a risk assessment process to identify and manage risks that could affect FIB's ability to provide reliable transaction processing for users. This process requires management to identify significant risks in their areas of responsibility and to implement appropriate measures to manage these risks.

Additionally, all mission-critical systems and general support systems are subject to an internal risk-based review every three years. This review identifies assets and possible threats to these assets, provides a measure of vulnerability of the system to these threats, and confirms control or protective measures are in place.

Monitoring

BPD management and supervisory personnel monitor the quality of internal control performance as a normal part of their activities. To assist them in this monitoring, BPD has implemented a series of "key indicator" management reports that measure the results of various processes involved in providing transaction-processing services to Fund Agencies. Key indicator reporting consists of PARS posting summary reports to validate accuracy. All exceptions to normal or

scheduled processing through hardware and software, or procedural problems are also logged, reported and resolved daily. These reports are inspected daily and weekly by appropriate levels of management, and action is taken as necessary.

INFORMATION AND COMMUNICATION

Information Systems

InvestOne Accounting System Description

The InvestOne accounting system is a vendor supplied subsystem of the Government Agency Investment Services System (GAISS). The InvestOne accounting system is used to record and report investment fund activity processed by FIB. The InvestOne accounting system is licensed by SunGard Investment Systems, Inc. (SunGard). The InvestOne accounting system resides on BPD's mainframe. OIT provides the primary support for maintaining the InvestOne accounting system. This includes mainframe operations (batch processing and reporting), custom report writing, application change management, data management, tape backup and recovery, user access security, remote access, and continuity management. The InvestOne accounting system is accessed through the network using a terminal emulator that enables communication with OIT mainframe applications. The InvestOne accounting system also provides a report writer package called Spectra that provides users with the ability to create their own reports. FIB uses Spectra to create reports, which provide functionality not included in the standard InvestOne reports.

FIB also receives supporting documentation/reports on a daily basis from internally-developed programs created by programmers. These programs read the data from the InvestOne accounting system and create various reports to assist in FIB's daily processing. Specifically, data is downloaded from the InvestOne accounting system to a data file located on the servers where the programs execute. Data is not sent from these programs to the InvestOne accounting system.

FedInvest Description

FedInvest, also a subsystem of GAISS, is a vendor-developed, web-based extension to the InvestOne accounting system that provides access to the federal investments information through the Internet. FedInvest allows federal investment fund managers to assume direct responsibility for managing their respective accounts. Using FedInvest, federal agencies are able to input transactions into the InvestOne accounting system, as well as view account statements and transaction information over the Internet. Additionally, FedInvest provides an interface to the InvestOne accounting system for internal fund managers in BPD's DFI. FedInvest includes edits that serve to enforce federal investment program policies resulting in improved data quality in the InvestOne accounting system.

FedInvest also includes two extensions that are available only to BPD internal users. The Customer Role Management (CRM) module is used by DSPS ISSRs to manage FedInvest users and their access to associated investment account information. CRM is used by FIB accountants to manage security type and account information. CRM is also used to create and post broadcast messages (announcements) that are seen by users signed onto the system, and establish email communication to all system users and their agency Chief Financial Officers. The Rate Price Administration (RPA) module is used by FIB accountants to load rates/prices, publish rates/prices on the TreasuryDirect website, apply prices to pending market-based transactions, post pending special issue par-value redemption transactions, and update FedInvest with the Consumer Price Index (CPI) for processing TIPS transactions.

Communication

BPD has implemented various methods of communication to ensure that all employees understand their individual roles and responsibilities over transaction processing and controls. These methods include orientation and training programs for newly hired employees, and use of electronic mail messages to communicate time sensitive messages and information. Managers

also hold periodic staff meetings as appropriate. Every employee has a written position description that includes the responsibility to communicate significant issues and exceptions to an appropriate higher level within the organization in a timely manner.

COMPLEMENTARY FUND AGENCY CONTROLS

BPD's processing of transactions and the controls over the processing were designed with the assumption that certain controls would be placed in operation by Fund Agencies. The application of specific controls at Fund Agencies is necessary to achieve all control objectives included in this report.

This section describes some of the controls that should be in operation at user entities to complement the controls at BPD. Fund Agency auditors should determine whether user entities have established controls to provide reasonable assurance that:

- Ensure that access to FedInvest is restricted to properly authorized individuals.
- Provide applicable legislation to FIB, and any subsequent legislation revisions, that authorizes the Fund Agency to invest.
- Verify the authority to invest prior to submitting investment account set-up and investment/redemption requests.
- Ensure that only authorized personnel sign requests or submit transactions in FedInvest.
- Ensure that the submission of investment/redemption requests in FedInvest is accurate and completed prior to 3:00 pm EST (11:00 am EST for Zero Coupon Bonds).
- Notify FIB if the investment/redemption requests have been processed incorrectly so that correcting transactions may be processed before 3:00 pm EST.
- Review investment/redemption/maturity/interest confirmations and Monthly Statements of Account to ensure that each request was processed accurately, timely, and in accordance with Fund Agency instructions.
- Track investment/redemption confirmations to ensure that the Fund Agency FedInvest user correctly processes all requests.
- Review and reconcile all transaction confirmations to determine that they are accurate and complete, and report discrepancies to FIB so that correcting transactions may be processed before 3:00 pm EST.
- Review adjustments and make prompt and appropriate journal entries to the accounting records, to adjust the investment account balances and related interest.
- Review Monthly Statements of Account to verify that adjustments were processed completely and accurately.
- Ensure that the requested investment returns the appropriate amount of interest to meet investment income goals.
- Reconcile interest payments received as presented in the confirmations and Monthly Statements of Account and recalculate interest for accuracy.

- Approve reinvestments of interest after review for accuracy, completeness, and compliance with instructions.
- Recalculate interest accrual and amortization of premium and/or discount and compare the results to the BPD provided monthly Accrual Confirmation and Accrual Activity Reports.
- Report any interest accrual discrepancies noted on the monthly Accrual Confirmation and Accrual Activity Reports to BPD for resolution.
- Report any premium and/or discount amortization discrepancies noted on the monthly Accrual Confirmation and Accrual Activity Reports to BPD for resolution.
- Review FIB provided Monthly Statements of Account to ensure that transactions are recorded accurately and timely, and report discrepancies to FIB so correction processes may occur.
- Reconcile investment activity from Financial Management Service application CARS Account Statements to the FIB provided Monthly Statements of Account to verify that investment activity is being properly reported by FIB on the Fund Agencies' behalf.
- Review detailed case management transactions to ensure that each request was processed accurately, timely, and in accordance with Fund Agency instructions.

Specific complementary Fund Agency control considerations are provided for Control Objectives 5, 8, 9, 10, 11, 13, 14, and 15 in the Control Objectives, Related Controls, and Tests of Operating Effectiveness section of this report.

SUB-SERVICE ORGANIZATIONS

In order to provide investment/redemption processing services, FIB relies on systems and services provided by other organizations external to BPD (sub-service organizations). The following table describes the types of the sub-service organizations used by FIB. These sub-service organizations were not subject to examination by KPMG LLP.

Name of Sub-service Organization	Function/Responsibilities
Federal Reserve Bank (FRB) of New York	On a daily basis, FIB obtains Treasury Price Quote files via digital certificate from a secure FRB website. FIB uses these price quote files to calculate the market-based security prices that can be loaded into the InvestOne accounting system and compared to the price files provided by ODM.
U.S. Department of the Treasury – Office of Debt Management (ODM)	On a daily basis, the ODM provides FIB the daily security price files for market-based transactions. Additionally, as needed, ODM provides FIB with the Zero Coupon Bond pricing. ODM provides FIB the Daily Market Quotations on Most Recently Auctioned Treasury Bills used for the rate for the one-day certificates.
U.S. Department of the Treasury – Financial Management Service (FMS)	Treasury’s FMS provides daily and monthly reports to FIB, including IPAC reports, and Central Accounting and Reporting System (CARS) account statements. FIB uses these reports to verify the accurate posting of transactions and data.

**IV. CONTROL OBJECTIVES, RELATED CONTROLS, AND
TESTS OF OPERATING EFFECTIVENESS**

GENERAL COMPUTER CONTROLS

Control Objective 1 – System Software

Controls provide reasonable assurance that changes to system software are authorized, tested, approved, properly implemented, and documented.

Description of Controls

The Bureau of the Public Debt (BPD) has documented procedures for the authorization, testing, approval, implementation, and documentation of system software changes.

The InvestOne accounting system operates within a mainframe environment¹. The FedInvest system is operated within a client-server environment^{2,3}. Mainframe and client-server system software products are under vendor control for maintenance and support. Upgrades to these products are obtained from the vendors and installed by the Office of Information Technology (OIT) specialists.

For system software changes, BPD uses the iET product for change management. All system software changes (i.e., new product installations, maintenance upgrades, etc.) require a change record to be opened in iET. A change record can be opened by any specialist in OIT's division responsible for effecting such changes or the change control coordinator. The iET change record includes a description of the change, implementation date of the change, a justification, and a back-up/back-out plan.

Changes are initially discussed at the weekly change control meetings. Attendees include OIT representatives impacted by the proposed change. Notification is sent to the assistant commissioner, division directors, branch managers and/or staff personnel. Following the meeting, the change control coordinator prepares and distributes the Weekly Change Control Memorandum with information on changes for the upcoming week. This memorandum describes the system changes, effective dates, reasons for changes or problems the changes will resolve. There is also a reference to the iET change control number.

Before system software changes can be moved to production, they are tested in accordance with the BPD's system software change control procedures. These procedures document the authorization, testing, approval, implementation, and documentation requirements for system

¹ Which consists of the following system software products:

- z/OS Operating System
- Customer Information Control System (CICS)
- ACF2 Security
- Tape Management System (TMS)
- Control M and D (Production and Print scheduling)
- ETF/A (Emergency Change Control)
- MQSeries
- DB2

² The FedInvest system is composed of the following system software components:

- Spring
- Hibernate
- Java Server Faces
- JAVA
- Windows Server 2003
- Sybase
- WebSphere Application Server

³ Reliant Services:

- LDAP access to Enterprise Directory Services
- SMTP access to Domino messaging service

software changes. Changes progress through various environments, which differ according to the type of system infrastructure. For the mainframe, there are three separate environments: test, acceptance, and production. Each environment is a logical environment with its own datasets and libraries. Mainframe changes are first tested by a programmer in the test environment; moved to acceptance, tested, and then changes are moved to the production environment following approval. For changes to distributed software, changes are promoted up through integration, acceptance, and production regions within similar controls described above.

All changes are reviewed and coordinated at the weekly change control meeting, and approved by the change control coordinator prior to being moved into the production environment.

All emergency changes follow the same process as indicated above, with the exception that changes move through the environments at an accelerated rate. Testing and approval of these changes are documented in iET.

BPD has established a process that allows system programmers and database administrators to have temporary access to the Production mainframe environment through the use of a “fire-call” ID product that allows them elevated privileges for system software and application changes. The operating system is configured to monitor and log such activity for review and approval by management; management reviews these logs within a reasonable timeframe after the use of “fire-call”.

OIT reviews the use of sensitive system utilities included in the protected programs group on a weekly basis and limits access to these programs based on job responsibility.

Tests of Operating Effectiveness and Results of Testing

1. Inspected written procedures for system software configuration management and determined that procedures were documented, including procedures to document, test, authorize, and approve system software changes, and properly implement changes into production.
2. Inspected the emergency system software change procedures and determined that procedures for implementing emergency system software changes were documented, including approval by management.
3. Inspected vendor maintenance support contracts for system software and determined that the contracts existed and were current.
4. For a selection of system software change records, inspected iET tickets and determined that iET was used throughout the examination period to log, track, and monitor system software changes.
5. For a selection of dates, inspected Weekly Change Control Memorandums and determined that weekly change control meetings were held to discuss planned changes with the potential to impact the InvestOne accounting system or FedInvest application system software.
6. For a selection of system software changes and emergency system software changes, inspected supporting documentation and determined that the changes were tested, authorized, and approved prior to implementation.
7. Inspected a list of users with access to use fire-call and determined that the list was commensurate with job responsibilities.

8. For a selection of days, inspected fire-call logs and evidence of review, and determined that fire-call logs were reviewed by OIT management.
9. For a selection of weeks, inspected evidence of OIT's review of reports for sensitive system utilities in the protected programs group and determined that the reports were reviewed.

No exceptions noted.

Control Objective 2 – Vendor Software

Controls provide reasonable assurance that implemented new releases of vendor-supplied applications are authorized, tested, approved, properly implemented, and documented.

Description of Controls

BPD has documented procedures for the testing and authorization of new releases of vendor supplied applications. The change control process is under the control and direction of the Office of Public Debt Accounting (OPDA).

The InvestOne accounting system is licensed by SunGard Investment Systems, Inc (SunGard). BPD has a maintenance and support contract for the InvestOne accounting system with SunGard. OIT is responsible for of all maintenance and support of the FedInvest system.

SunGard periodically provides new releases of the InvestOne accounting system, including documentation. Each new release requires comprehensive testing. The Division of Systems and Program Support (DSPS) tests the new InvestOne accounting system releases developed by SunGard consistent with change control procedures for OPDA systems. New InvestOne accounting system releases are installed in the Test environment where they are initially tested. After successful completion of testing, OIT migrates the InvestOne accounting system new release to the Acceptance environment, where it is subjected to acceptance testing by users. OIT only installs an InvestOne accounting system new release in the Production environment after all testing has been successfully completed and management has approved the InvestOne accounting system new release for implementation in the Production environment. BPD loaded InvestOne version 9.1 in December 2010.

In addition to new releases, SunGard will periodically provide fix tapes for the InvestOne accounting system. Fix tapes, which address certain InvestOne accounting system issues, are narrower in scope than new releases. Based on what changes a particular fix tape includes, BPD management will decide whether or not to implement the fix tape. If BPD management decides to implement the fix tape, the fix tape is migrated through the Test and Acceptance environments. Fix tapes are installed in the Production environment only after successful completion of testing in the Test and Acceptance environments and management approval for migration into the Production environment.

DSPS also tests changes to the InvestOne accounting system application reports, developed by SunGard Investment Systems, Inc. using the same change control procedures described above.

In addition, BPD uses the version control software to manage the upgrades and enhancements. Changes are only migrated into the production environment once all responsible parties approve the change in the version control software. Access to migrate changes via the version control software is limited based on job responsibility.

Tests of Operating Effectiveness and Results of Testing

1. Inspected procedures for the implementation of new releases of vendor supplied applications, and determined that they were documented and included requirements for authorization, testing, documentation, and approval.
2. Inspected vendor maintenance support contracts for the InvestOne accounting system software and determined that the contracts existed and were current.
3. For new InvestOne releases, inspected supporting documentation and determined that the enhancements were tested, approved, properly implemented and documented.

4. There were no fix tapes implemented during the examination period. We inquired of management regarding the fix tape implementation process and inspected the listing of vendor software changes and enhancements and determined that there were no fix tapes recorded.
5. Inspected version control software access permissions and determined that access permissions to migrate changes to the production environment were restricted commensurate with job responsibilities.

No exceptions noted.

Control Objective 3 – Program Change Control

Controls provide reasonable assurance that development of new applications and changes to existing applications are authorized, tested, approved, properly implemented, and documented.

Description of Controls

BPD has documented procedures for the authorization, testing, approval, implementation, and documentation of application software changes. The application change control process is under the control and direction of OPDA.

SunGard has custom built additional application components for data entry and reporting. Included is the FedInvest application, which functions as a web-based user interface that Fund Agencies can use for entering transactions into the InvestOne accounting system. For reporting, BPD has built internally-developed programs utilizing RM (desktop) COBOL and mainframe COBOL that generate customized reports to provide information unavailable in the standard InvestOne accounting system reporting package.

For RM COBOL, OIT uses a version control software⁴ to control access to source code for these internally-developed programs and to facilitate version control by requiring developers to check source code in and out using version control software. These programs read the data from the InvestOne accounting system and create reports. Specifically, data is downloaded from InvestOne accounting system, using standard processes, to a data file on the mainframe then via ftp to the servers where the programs execute. Data is not sent from these programs to the InvestOne accounting system. The reports are used by the trust fund managers, sent to Fund Agencies, or sent to U.S. Department of Treasury's Financial Management Service, the Office of Debt Management and Office of Fiscal Projection. The Congressional Budget Office also receives reports generated from the InvestOne accounting system.

For mainframe COBOL, OIT uses a version control software⁵ to control access to source code for these internally-developed programs and to facilitate version control. These programs were developed by OIT and reside on the mainframe, where these programs execute.

For FedInvest and customized reports, OIT uses a version control software⁶ to control access to source code for the vendor supplied and BPD managed programs to facilitate version control. Changes to FedInvest were developed by SunGard between August 1, 2008 and September 30, 2008 and by OIT between October 1, 2008 and July 31, 2009.

DSPS provides support for the design and testing of the above changes. DSPS creates the requirements documentation, which is then provided to OIT (or SunGard) for development. DSPS manages the request, documentation, testing, and approval process using a Change Control Checklist and iET.

Changes using version control software progress through four separate environments: Test Integration, Acceptance, and Production. A change is first tested by the programmer in the Test or Integration environment. It is then migrated to the Acceptance environment where a user tests the change using example transactions and Acceptance environment files and libraries.

Each change is reviewed by the user groups that are affected by the change, and each group provides user concurrence that they accept the change. Following user concurrence, a senior staff member reviews the testing materials and completes the Change Control Checklist indicating that

⁴ Microsoft Visual Source Safe

⁵ Endeavor

⁶ ClearCase

testing has been completed. The package is provided to the DSPS Branch Manager for final review and approval.

Once the DSPS Branch Manager approves the change, DSPS sends a Network Services Request to OIT to move the change into the Production environment. Upon notification of an accepted change, OIT creates an update package in version control software. Only approved changes are installed in the Production environment.

For mainframe COBOL, the version control software is an application through which users approve changes. This version control software is also used to move changed program files into the Production environment. This version control software will not allow changes to be migrated from the Acceptance environment into production until the changes have been approved. Access to migrate changes to Production via the version control software change control software is limited based on job responsibility.

Tests of Operating Effectiveness and Results of Testing

1. Inspected application software change procedures and determined that they were documented and included requirements for authorization, testing, documentation, and approval.
2. Inspected the access permissions and inquired of OIT management and determined that access to source code for internally-developed programs was commensurate with job responsibilities.
3. Inspected the access control lists for FedInvest and customized reports version control software and determined that access to the source code for FedInvest was commensurate with job responsibilities.
4. Inspected a selection of change records in iET and determined that iET was used throughout the examination period to log, track, and monitor application software changes.
5. For a selection of application software changes, inspected supporting documentation and determined that the changes were tested and approved.
6. Inspected version control software access permissions and determined that access permissions to migrate changes to the production environment were restricted commensurate with job responsibilities for mainframe COBOL and FedInvest.

No exceptions noted.

Control Objective 4 – Physical Access

Controls provide reasonable assurance that physical access to computer equipment and storage media is restricted to authorized individuals.

Description of Controls

BPD has documented policies and procedures for controlling physical access to BPD buildings and to the data center. These include:

- Identification of sensitive/critical areas to which access needs to be restricted.
- Physical access controls designed to detect unauthorized access.
- Procedures for log reviews and investigation of violations.

The InvestOne accounting system mainframe and FedInvest servers reside in OIT's data center. Various physical access controls protect the facilities.⁷

The Security Branch issues employee badges, after performing security background checks and fingerprinting.

Employees are required to have badges available at all times upon request.

Terminated employees are required to surrender identification badges and are removed from the database security system immediately.

Physical access to the OIT Data Center is restricted to authorized users only. An employee needing access to the data center must have his/her Branch Manager request access. The requests are made through iET, a workflow system that is used to approve data center access. After the Branch Manager completes and submits the iET request form, requests are forwarded to OIT's data center managers for approval in the iET. If OIT approves the request, the BPD Division of Security and Emergency Preparedness (DSEP) Security Branch grants access. Access to all sensitive areas requires use of a badge. The use of a badge provides an audit trail that is reviewed by OIT management monthly for potential access violations. Any unauthorized access attempts are followed-up on by contacting the individual's supervisor. Individuals without badge access to the data center must be escorted to the command center and are required to sign in/out of a Visitor log to be issued a data center visitor badge. Visitor badges do not have access to the data center, but rather designate the individual as a visitor. A visitor log is maintained at the main entrance to the data center.⁸

OIT performs a monthly review of individuals' access patterns of the data center for the previous month. OIT performs a semiannual reconciliation of individuals authorized data center access to individuals granted data center access by DSEP. Additionally, OIT performs an annual review and recertification of individuals with access to the data center. If an individual is found to have unauthorized data center access, OIT will, based on the individual's need for access, make a decision whether to request that DSEP remove their data center access or whether to provide authorization for their access.

⁷Armed security guards man and monitor BPD facilities 24 hours a day, 7 days a week. A digital video camera system monitors all entrances, the building perimeter, and certain interior areas, including the data center, and records activity 24 hours a day. All people entering each building are required to place any materials, packages, bundles, etc. onto an x-ray machine. Entrants are also required to pass through a walkthrough metal detector. An activation of the walkthrough metal detector results in further screening by the security guard, utilizing a handheld metal detector to identify the source of activation. In addition, entrants must swipe their badges into an access control system that grants access to authorized personnel.

⁸ Only designated DSEP specialists have access to PACS. Vendors that are authorized to have a badge are issued a One-day badge and must leave their access badge onsite following completion of work in the data center. A log of One-Day badges is maintained and reviewed weekly .

Tests of Operating Effectiveness and Results of Testing

1. Inspected physical access policies and procedures for the data center and determined that they were documented and included the identification of sensitive/critical areas to which access needs to be restricted, physical access controls designed to detect unauthorized access, and procedures for log reviews and investigation of violations.
2. Observed physical access controls of BPD buildings and the OIT data center and noted that security guards, video cameras, badge readers, displayed badges by employees, and locked doors were in place and in operation to restrict access.
3. Observed persons entering BPD buildings and noted that persons were required to place any materials, packages, bundles, etc. onto an x-ray machine, and additionally were required to pass through a walkthrough metal detector.
4. Observed persons entering BPD buildings and noted that an activation of the walkthrough metal detector resulted in further screening by the security guard, utilizing a handheld metal detector to identify the source of activation.
5. Observed entrants swipe their badges into the access control system and noted that the controls system granted access to authorized personnel.
6. For a selection of personnel granted data center access, inspected supporting documentation and determined that access badges were issued to personnel with a completed background check and fingerprinting.
7. Observed employees within the BPD buildings and noted that badges were displayed.
8. Inspected the data center access list and compared to a list of separated employees and determined that separated employees were removed from the badge reader system.
9. Inspected a list of employees with card key access to the data center and tape storage room from the card security system and an organizational chart showing employees requiring access to the data center and tape storage room and determined that physical access to the OIT data center was restricted to authorized employees only.
10. For a selection of employees and contractors granted access to the data center during the examination period, inspected the iET record for the access granted and determined that access was approved by the data center manager.
11. Inspected permissions to access the PACS badge system of BPD security management, and determined that access permissions to the physical access systems were commensurate with job responsibilities.
12. For a selection of months, inspected evidence of the monthly review of violation logs and determined that a review to identify unauthorized access attempts was performed. We determined that there were no violations for the selections and follow-up was not required.

13. For a selection of dates, inspected visitor logs and determined that visitor logs were reviewed by OIT management.
14. For a selection of days, inspected shift logs and determined that an inventory of vendor badges was performed.
15. Inspected documentation of the monthly review of physical access privileges to the data center and determined that access privileges were reviewed.
16. Inspected documentation of the annual recertification of physical access privileges to the data center and determined that access privileges were recertified.

No exceptions noted.

Control Objective 5 – Logical Access

Controls provide reasonable assurance that logical access to system and application software is restricted to authorized individuals.

Description of Controls

BPD has guidelines for the preparation of security plans for applications and systems that process Sensitive but Unclassified information. All mission-critical systems and general support systems are subject to an internal risk-based review every three years. This review identifies assets and possible threats to these assets, provides a measure of vulnerability of the system to these threats, and confirms control or protective measures are in place.

The InvestOne accounting system is classified as a mission-critical system.

InvestOne accounting system security along with the host mainframe's security package controls access to the InvestOne accounting system. InvestOne accounting system security restricts access to accounts within the system based on user banks and user identification (UID). InvestOne accounting system access is restricted to authorized personnel. The security settings are also used to restrict OIT personnel's access to system software, data files, and program libraries.

FedInvest is a web-based user interface through which users have access to enter transactions into and view InvestOne accounting system data. External users are limited to accessing InvestOne accounting system data through FedInvest. External users that invest in Government Account Series (GAS) securities are able to connect to FedInvest over the Internet to input transactions into the InvestOne accounting system as well as to view account statements and transaction information.

Administrator access permissions are allocated in the FedInvest and the InvestOne accounting system users commensurate with their job responsibilities.

OPDA follows BPD system administration security password guidelines/procedures to establish and maintain passwords.⁹ Passwords are not displayed when entered. The reserved word feature is enabled to prevent the use of commonly used words in passwords.

Information System Security Representatives (ISSRs) manage access to the InvestOne accounting system. Users must complete and submit an Access Request/ Revoke Form to the Division of Federal Investments (DFI) who approves the form and forwards to DSPS before access is granted. DFI personnel authorize the form and forward to OPDA ISSRs to process the request. DSPS has documented procedures for granting access. Modifications to user accounts require use of the same Access Request/Revoke Form.

External users must have their supervisor's approval along with DFI approval documented on an Access Request/Revoke form before access is granted to FedInvest. When an external user accesses InvestOne accounting system data, they enter a user ID and password into FedInvest. User IDs are authenticated by a security utility¹⁰. If the required authentications failed, the user would be prevented from accessing InvestOne accounting system data through FedInvest.

ISSRs remove FedInvest and InvestOne accounting system access from users at the request of their managers/supervisors or FIB personnel. Each access removal request is documented on an Access Request/Revoke Form.

⁹ These guidelines require passwords to be at least 8 characters in length, changed every 30 days for ACF2 and every 90 days for LDAP, and unique for each individual.

¹⁰ BPD's standard authentication utility, BPDLogin, is used to authenticate users. User credentials are stored in BPD's enterprise directory.

On a routine basis, ISSR reviews Internal Violations Reports for any inappropriate activity; follow-up is notated on the report.

Additionally, on a periodic basis an ISSR reviews a report of all InvestOne accounting system user IDs that have not been used to access InvestOne accounting system within a predetermined number of days¹¹. The ISSR follows up with any affected users by email or by phone.

Additionally, OPDA recertifies access to mission critical systems by verifying access privileges for all InvestOne accounting system and FedInvest users. DSPS ISSRs remove or modify any user IDs or access privileges identified for deletion or changes by the user's manager/supervisor or DFI personnel when accompanied by a revoke form.

Complementary Fund Agency Controls

Fund Agencies should establish controls to:

- Ensure that access to FedInvest is restricted to properly authorized individuals.

Tests of Operating Effectiveness and Results of Testing

1. Inspected the relevant Certification and Accreditation (C&A) of the InvestOne accounting system and FedInvest systems and determined that the system had been authorized to operate.
2. Inspected the InvestOne accounting system and FedInvest risk assessment and determined that a risk assessment was performed.
3. Inspected the InvestOne accounting system and FedInvest security plan and determined that the plan was documented.
4. Observed a user log into the InvestOne accounting system and the FedInvest system and noted that their access was restricted in accordance with the system configuration.
5. For each InvestOne accounting system user, compared access granted to an OPDA Organization Chart and determined that access privileges were commensurate with job responsibilities.
6. Inspected security guidelines and procedures for administrator privileges InvestOne accounting system and FedInvest and determined that security guidelines and procedures were documented for the administrator privileges.
7. Inspected a list of users with administrator access privileges to InvestOne accounting system and FedInvest and determined that access was limited commensurate with job responsibilities.
8. Inspected an OPDA Organizational Chart and determined that administrator access was commensurate with job responsibilities.
9. Inspected security password guidelines and procedures for InvestOne accounting system and FedInvest and determined that password parameters were documented.

¹¹ A list of InvestOne users that have not logged into InvestOne for 45 days or more is reviewed monthly.

10. Inspected password settings for InvestOne accounting system and FedInvest and determined that password length, complexity, and expiration settings were configured in accordance with BPD requirements.
11. Observed a user log into InvestOne accounting system and FedInvest and noted that their password was masked as they entered it.
12. For a selection of new InvestOne users, inspected documented user access request forms and determined that access was authorized by FIB and the user's supervisor.
13. For a selection of new FedInvest users, inspected documented user access request forms and determined that access was authorized by FIB and the user's supervisor.
14. Inspected a list of all separated and transferred BPD employees and lists of InvestOne accounting system and FedInvest user IDs and determined that access to InvestOne accounting system and FedInvest had been revoked for terminated and transferred BPD employees.
15. For a selection of weeks, inspected reports listing InvestOne accounting system security administrator actions entered into the system and determined that the reports were reviewed by an ISSR and any exceptions were followed-up.
16. For a selection of weeks, inspected ACF2 InvestOne accounting system audit log reports and evidence of review, and determined that the reports were reviewed by an ISSR and any exceptions were followed-up.
17. For a selection of months, inspected evidence of review and removal of inactive accounts and determined that inactive user accounts were reviewed and removed on a monthly basis.
18. Inspected documentation of the review and recertification of internal InvestOne accounting system and FedInvest user access and determined that internal InvestOne accounting system and FedInvest user access were reviewed and recertified.
19. For a selection of external FedInvest users, inspected documentation of the review and recertification of external FedInvest user access and determined that external FedInvest user access were reviewed and recertified.
20. For a selection of user account recertification reviews requesting removal of user access privileges, inspected InvestOne accounting system and FedInvest user lists, and determined that requested modifications were made.

No exceptions noted.

Control Objective 6 – Computer Operations

Controls provide reasonable assurance that computer processes are scheduled appropriately and deviations are identified and resolved.

Description of Controls

The InvestOne accounting system is an interactive mainframe system with master data files that are updated when entries are posted. End-of-day processes perform maintenance to the data files and data backups. OIT support personnel complete the Production Control Daily Checklist to verify the successful completion of end-of-day processes. Data entry error checking and input screen designs help ensure that the data entered by the users is accurate and complete. The error checks include verification of entered data based on predetermined values and ranges. Errors detected by the system are rejected immediately and must be corrected before the transaction is permitted to update the master data tables.

Daily user operations procedures are posted for the InvestOne accounting system to provide operators with the information necessary to sequentially complete daily processing. Additionally, a monthly calendar is posted that highlights the daily requirements. The InvestOne accounting system configuration requires that daily reporting be performed in sequence before transaction processing can begin. OIT completes the Production Control Monthly Checklist to verify the successful completion of end-of-month processes.

The mainframe job scheduler software controls the scheduling of batch jobs for the InvestOne accounting system. The job scheduler allows all programs for batch processing, printing and data backup to be scheduled and performed automatically. Access to the job schedules is limited to OIT support personnel and privileges are commensurate with job responsibilities. The job scheduler sends messages confirming successful completion of each day's scheduled jobs to OIT and DSPS. Any abends are also communicated to the appropriate OIT and OPDA personnel as they happen through automated messages. Abends are resolved and jobs are restarted as necessary through the job scheduler.

Tests of Operating Effectiveness and Results of Testing

1. For a selection of dates, inspected Production Control Daily Checklists and determined that the checklists were used during processing.
2. Observed transactions entered into the InvestOne accounting system and determined that error checking edits prevented users from entering values of the wrong data type or values not on lookup lists.
3. Inspected posted daily user operations for InvestOne accounting system and FedInvest, the FIB Daily Procedures, and the monthly requirements calendar and determined that these schedules and procedures were available.
4. For a selection of months, inspected Production Monthly Checklists and determined that the checklists were used during month-end processing.
5. Inspected the InvestOne accounting system job schedule and determined that a job production schedule for the InvestOne accounting system was documented.

6. Inspected privileges of individuals granted access to make modifications to schedules and job control language for production jobs in the mainframe job scheduler and inquired of management regarding job responsibilities, and determined that access privileges were limited commensurate with job responsibilities.

No exceptions noted.

Control Objective 7 – Network Performance Monitoring

Controls provide reasonable assurance that network performance monitoring techniques are implemented appropriately.

Description of Controls

Users must be connected to the BPD network to access the InvestOne accounting system. Additionally they must run terminal emulation software to connect to the mainframe environments. Network performance and availability is monitored by OIT at all times.¹²

Tests of Operating Effectiveness and Results of Testing

1. Observed OIT Command Center staff and noted that monitoring tools were used to monitor the performance and availability of BPD networking equipment, such as switches and firewalls.
2. Observed OIT Command Center staff and noted that tools were used to monitor the performance and availability of the FedInvest website.
3. Inquired of management and were informed that the OIT Command Center was staffed 24 hours a day.

No exceptions noted.

¹² Using the following utilities:

A combination of monitoring tools (ManageEngine OP Manager and HP SiteScope) are used to monitor networking equipment such as switches and firewalls. These tools automatically report any network equipment or application outages to the Network Operations Center.

INVESTMENT/REDEMPTION PROCESSING CONTROLS

Control Objective 8 – Item Processing Security

Controls provide reasonable assurance that an authorized investment authority is established prior to processing investment requests.

Description of Controls

The Office of the Fiscal Assistant Secretary (OFAS) prepares the Department of the Treasury Operating Circular (Operating Circular) that communicates the policies and procedures regarding the government accounts on the books of the Treasury that the Secretary of the Treasury has been authorized or directed by law to invest. The Operating Circular describes the government investment account responsibilities that the Treasury has, and the fiscal responsibility the Fund Agencies have for the use of the invested funds.

The Operating Circular also describes the process for how Treasury issues approval of the Fund's investment authority. FIB creates new investment accounts in the InvestOne accounting system that will be available in FedInvest after FIB receives confirmation that the BPD Chief Counsel's office and Assistant General Counsel for Banking and Finance completed the legal review of the Fund's investment authority or receives a completed Memorandum of Understanding (MOU) between Treasury's OFAS and the Fund Agency.

BPD Chief Counsel's office maintains records concerning all legal matters with regards to new and existing investment funds.

Complementary Fund Agency Controls

Fund Agencies should establish controls to:

- Provide applicable legislation to FIB, and any subsequent legislation revisions, that authorizes the Fund Agency to invest.
- Verify the authority to invest prior to submitting investment account set-up and investment/redemption requests.
- Ensure that only authorized personnel sign requests or submit transactions in FedInvest.

Tests of Operating Effectiveness and Results of Testing

1. For a new account creation, observed FIB personnel process the account request and determined that FIB approved the investment account and obtained authorized investment authority in accordance with the documented procedures.
2. For a selection of investment accounts created during the examination period, inspected documentation of approval from Treasury for their creation and determined that approval from Treasury was received prior to the creation of investment accounts.

No exceptions noted.

Control Objective 9 – Item Capture

Controls provide reasonable assurance that investment and redemption requests are processed and recorded accurately and prepared in a timely manner.

Description of Controls

Fund Agencies log on to FedInvest to enter their investment and redemption requests prior to the 3:00 pm EST deadline (11:00 am EST for Zero Coupon Bonds). Investment options include: (1) Market-based bills, notes, bonds, Treasury Inflation Protected Securities (TIPS); (2) One-day certificates; (3) special issue par-value securities for agencies with proper legislative authority; and (4) Zero Coupon Bonds. Procedures for processing investment and redemption requests by FIB accountants on behalf of the Fund Agency are documented for each type of transaction. For new market-based securities auctioned by Treasury, FIB accountants manually set up the new securities with a Committee on Uniform Securities Identification Procedures (CUSIP) number assigned by the Treasury into the InvestOne accounting system. Zero Coupon Bond securities are manually set up by FIB accountants with a CUSIP number assigned by the Treasury into the InvestOne accounting system only when an investment request is received by the agency. One-day and special issue par-value securities are also set-up by a FIB accountant; however, the FIB accountant assigns a security number based on the security name and date of issue instead of a CUSIP number. Another FIB accountant reviews the set-up of a new security to ensure that they are accurately recorded.

Prior to February 29, 2012, if a Fund Agency could not access FedInvest, the agency could send investment/redemption requests by fax, email, or hard copy form to FIB for processing on their behalf. Subsequent to February 29, 2012, if a Fund Agency cannot access FedInvest, the agency can send investment/redemption requests by email to FIB for processing on their behalf. To ensure that the Fund Agency's investment/redemption requests are suitable and have been entered correctly into the system, two FIB accountants review and digitally stamp each request, in addition to the accountant who entered the transaction into the FedInvest or InvestOne accounting system. The FIB accountants inspect the requests to ensure that they include: name of fund, account symbol, date of request, amount, type of security to invest/redeem, and authorized signature of the Fund Agency manager or authorized agent. If the requests do not contain the required information, the FIB accountants contact the Fund Agency to obtain the required information. Investment/redemption requests are processed as of the date on the requests.

Market-based securities – Office of Debt Management (ODM) provides FIB daily security price files for the market-based securities. These price files are calculated by ODM using Federal Reserve Bank (FRB) of New York Treasury Price Quote files. FIB accountants perform daily procedures to ensure the accuracy of the prices and for contingency planning in the event that ODM price files are unavailable to FIB. FIB accountants obtain the FRB of New York Treasury Price Quote files from a secure website using a digital certificate. The FIB accountant runs a desktop COBOL program that uses the FRB of New York prices to calculate and prepare market-based price files that can be loaded into the InvestOne accounting system. The desktop COBOL program also compares the calculated prices to the prices contained in the ODM files producing an exception report of any differences. In addition, a FIB accountant performs a yield curve comparison to check for significant variances from the composite Bloomberg generic pricing source obtained from the Bloomberg terminal. The FIB accountant notifies ODM of any price differences on the exception report and unusual variances identified from the yield curve comparison, if any, and ODM provides FIB with certification of any necessary price corrections

via email. The FIB accountant loads the market-based prices into the InvestOne accounting system and FedInvest by approximately 1:00 pm EST.

Overnight Rates (One-day securities) – ODM provides FIB the daily rate for the one-day certificates in an email of daily market bid quotations on most recently auctioned Treasury bills. The one-day rate is the prior day's coupon equivalent of the shortest regularly issued Treasury security, currently the 4 week bill. Each morning, a FIB accountant enters the overnight interest rate for the one-day security into the InvestOne accounting system and FedInvest and two FIB accountants compare the InvestOne accounting system security definition screens and the FedInvest screen to the ODM email received to ensure the rate was recorded accurately.

Special issue par-value securities – On the first business day of each month, a FIB accountant creates the special issue par-value securities in the InvestOne accounting system and FedInvest using the rates provided by the Division of Accounting Operations (DAO) Securities Accounting Team (SAT), formerly known as the Principal and Interest Accounting Team (PIAT). SAT prepares the rates for submission to FIB using rates provided by ODM and the average auction results of Treasury securities as specified in the pertinent legislation. Once the special issue par-value security rates are compiled, they are submitted to the SAT team lead for review. The team lead reviews the rates prior to submission to FIB by comparing the rates on the form for submission to the rates obtained from ODM and the security auction results tables. Once the securities have been created in the InvestOne accounting system using the rates obtained from SAT, the FIB accountant runs a report from the FIB Menu (a COBOL collection of desktop programs) to create a report showing values from the InvestOne accounting system security definition screens and compares them to the rates provided by SAT to ensure that the rates are recorded accurately and documents the review by digitally stamping the rate sheet that was provided by SAT.

Zero Coupon Bond securities - ODM provides the Zero Coupon Bond pricing on an as needed basis. Currently, only two Fund Agencies invest in Zero Coupon Bonds. FIB receives the Fund Agency instructions for the purchase/redemption of Zero Coupon Bonds through a FedInvest email notification. A Fund Agency must enter Zero Coupon Bond purchase requests into FedInvest prior to 11:00 am EST on the desired date. Once the purchase request has been entered, FedInvest sends an automated email to the FIB accountants and the FIB accountants forward the request to ODM for pricing. ODM prices the transaction at approximately noon and provides the pricing data to FIB. A FIB accountant enters the applicable pricing data and posts the requested transaction in InvestOne accounting system. Two other FIB accountants compare the pricing information from the InvestOne accounting system to the pricing data received from ODM to ensure the pricing is accurately recorded. A confirmation is available in FedInvest to the FedInvest user. The preparer and reviewing FIB accountants digitally stamp the supporting documentation for the transaction to document their review.

Fund Agencies that have not authorized FIB to process investment transactions on their behalf need to purchase new securities each day using FedInvest (their investments are not automatically rolled over). Prior to February 29, 2012, if a Fund Agency could not access FedInvest, the agency requested the investment via email, fax, or hard copy. Subsequent to February 29, 2012, if a Fund Agency cannot access FedInvest, the agency must request the investment via email. FIB accountants process these overnight transactions as instructed.

Investment Request Processing

To establish access to FedInvest, the Fund Agency completes a FedInvest Logon-ID Request form, which is signed by a supervisor at the Fund Agency. FIB verifies that the information is complete, then emails the IT Service Desk to request that the user be added to Contact Management. Once the IT Service Desk notifies FIB that the user has been added to Contact Management, FIB provides the user form to the DSPS ISSRs for user set-up in FedInvest. OIT provides the new user with their user ID and temporary password and contacts the user to login to FedInvest with the temporary password, answer security questions, and change the password. FIB then coordinates FedInvest training with the new user. When a FedInvest user is terminated, the Fund Agency uses the FedInvest Logon-ID Request form to revoke access and submits the approved form to FIB. FIB then terminates the user's access.

Fund Agency users access FedInvest using their user ID and password. The Fund Agency user selects the Account Fund Symbol (AFS), date, security type, and investment amount in FedInvest.

Before Prices Loaded – The FedInvest user may enter investment requests before prices are loaded in the system for up to 10 business days in the future except for Zero Coupon Bonds and Special Issue Certificates of Indebtedness. Upon submission of the request for future dated market-based and TIPS securities, the user receives a confirmation number, which is proof to the Fund Agency that their request was accepted. When prices are loaded by the FIB accountant into the InvestOne accounting system, the FIB accountant uses the FedInvest RPA module to load the prices into FedInvest, publish them on the website, and apply the prices to the pending investment transactions. Once the price has been applied to the transaction, it is automatically posted to the InvestOne accounting system and the confirmation number is replaced with a memo number that is also on the confirmation available to the user in FedInvest.

For future dated one-day investments, the user receives the memo number immediately. Once the one-day rate has been loaded into InvestOne accounting system/FedInvest for the effective date of the investment, a confirmation of results with rate information will be available in FedInvest to the FedInvest user.

After Prices Loaded – The FedInvest user may enter investment requests after prices are loaded into the InvestOne accounting system, except for Zero Coupon Bonds. Since FedInvest interfaces with the InvestOne accounting system, the InvestOne accounting system automatically assigns a memo number and applies the price/rate. A confirmation of results is available in FedInvest to FedInvest users.

Zero Coupon Bond securities – The FedInvest user may enter investment requests by 11:00 am EST. FedInvest sends the request by email to the FIB accountants who forward the request to ODM for pricing. ODM prices the purchase of the Zero Coupon Bond at approximately 12:00 pm EST and forwards the results to FIB by email. The FIB accountant enters the pricing results into the InvestOne accounting system, posts the transaction, and forwards the memo number to the FedInvest user. A confirmation of results is available in FedInvest to the FedInvest user.

Prior to February 29, 2012, if a Fund Agency could not access FedInvest, FIB received investment requests via fax, email, or hard-copy from Fund Agencies. Subsequent to February 29, 2012, FIB may receive investment requests via email from Fund Agencies if an agency cannot access FedInvest. A FIB accountant enters the request into FedInvest or InvestOne accounting system on behalf of the Fund Agency. Then two FIB accountants compare the

transaction confirmation to the investment request to ensure the investment request is recorded accurately, posted to the correct day, and then digitally stamp the investment request to document their review. A confirmation of results is available in FedInvest to the FedInvest user the same day.

On the following business day, a FIB accountant compares the InvestOne report (Prior Day Review) to the investment requests submitted by the Fund Agency to ensure transactions were properly entered into the InvestOne accounting system. The FIB accountant documents this review by digitally stamping the investment request.

Redemption Request Processing

To establish access to FedInvest, the Fund Agency completes a FedInvest Logon-ID Request form, which is signed by a supervisor at the Fund Agency. FIB verifies that the information is complete then emails the IT Service Desk to request that the user be added to Contact Management. Once the IT Service Desk notifies FIB that the user has been added to Contact Management, FIB provides a copy of the FedInvest Logon-ID Request form to the DSPS ISSRs for user set-up in FedInvest. OIT provides the new user with their user id and temporary password and contacts the user to login to FedInvest with the temporary password, answer security questions, and change the password. FIB then coordinates FedInvest training with the new user. When a FedInvest user is terminated, the Fund Agency uses the FedInvest Logon-ID Request form to revoke access and submits the approved form to FIB. FIB then terminates the user's access.

Fund Agency users access FedInvest using their user ID and password. The Fund Agency user selects the AFS, date, inventory method (First-In First-Out (FIFO) or Specific ID), security type, and redemption amount in FedInvest.

Before Prices Loaded – The FedInvest user may enter Market-based bill, note, bond, and TIPS redemption requests using the FIFO inventory method before prices are loaded in the system for up to 10 business days in the future. Upon submission of the request, the user receives a confirmation number which is proof to the Fund Agency that their request was accepted. When prices are loaded by the FIB accountant into the InvestOne accounting system, the FIB accountant uses the FedInvest RPA module to load the prices into FedInvest, publish them on the website, and apply the prices to the pending redemption transactions. Once the price has been applied to the transaction, it is automatically posted to the InvestOne accounting system, as evidenced by the replacement of the confirmation number with a memo number that is also on the confirmation available to the user in FedInvest.

After Prices Loaded – The FedInvest user may enter Market-based bill, note, bond and TIPS redemption requests using the FIFO or Specific ID inventory methods after prices are loaded in the InvestOne accounting system and FedInvest. If Fund Agencies have tax lots (a group of the same securities purchased on different dates) and decide to apply the specific identification method rather than the FIFO method to redeem from specific tax lots, Fund Agencies need to select “Specific ID” inventory method to override the InvestOne accounting system default setting of the FIFO method, and enter the principal amount to redeem for each tax lot. Since FedInvest interfaces with the InvestOne accounting system, the InvestOne accounting system automatically assigns a memo number and applies the price/rate. A confirmation of results is available in FedInvest to FedInvest users.

Special issue par-value securities - Special issue par-value securities have unique redemption rules that require the InvestOne accounting system to redeem them based on the order of earliest maturity date, lowest prevailing interest rate, and FIFO. The FedInvest user receives a confirmation with a confirmation number and a message that the redemption rules will be applied in accordance with Treasury Fiscal Policy. The transaction will be pending until after the close of business on the effective date. At close of business (after 3:00 pm EST) on the effective date of the redemption, the FIB accountant uses the FedInvest RPA module to run the Post Par Value Sell Transactions that will process, post, and assign memo numbers to the pending redemption requests in the InvestOne accounting system using the unique redemption rules. A confirmation of results is available in FedInvest to FedInvest users.

Zero Coupon Bond securities – The FedInvest user must enter redemption requests into FedInvest (by 11:00 am EST) and FedInvest sends an email to the FIB accountants who forward the request to ODM for pricing. ODM prices the redemption of the Zero Coupon Bond at approximately 12:00 pm EST and forwards the results to FIB via email. The FIB accountant enters the pricing results into the InvestOne accounting system, posts the transaction, and forwards the memo number to the FedInvest user. A confirmation of results is available in FedInvest to the FedInvest users.

Prior to February 29, 2012, FIB received redemption requests via fax, email, or hard-copy from Fund Agencies if an agency could not access FedInvest. Subsequent to February 29, 2012, FIB may receive redemption requests via email from Fund Agencies if an agency cannot access FedInvest. A FIB accountant enters the request into FedInvest or the InvestOne accounting system on behalf of the Fund Agency. Then two FIB accountants review and digitally stamp the redemption request. A confirmation of results is available in FedInvest to the FedInvest user the same day.

On the following business day, a FIB accountant compares the InvestOne report (Prior Day Review) to the redemption requests submitted by the Fund Agency to ensure transactions were properly entered into the InvestOne accounting system. The FIB accountant documents this review by digitally stamping the redemption request.

Investment Maturity Processing

If Fund Agencies do not redeem securities prior to the maturity date, the InvestOne accounting system automatically matures the securities on the maturity date. A confirmation of results is available in FedInvest to the FedInvest user. Each day, a FIB accountant compares the system generated maturities to expected maturity reports ran after the close of the previous business day.

Each business day, a FIB accountant runs a report for all one-day investments from the previous business day and the current day's maturities, reviews the report to make sure that all one-day investments matured and paid interest, and documents approval by digitally marking the daily checklist.

Detailed Case Management Processing

Three Fund Agencies provide reimbursement to FIB for the service of tracking investments at a level of detail greater than what is required to record issues, redemptions, and maturities within the InvestOne accounting system. Certain Fund Agencies have a requirement to hold monies in escrow pending legal determination of ownership, so FIB accommodates them by establishing a network of sub-accounts, or cases, that in aggregate equal the fund's investment balance. This

way, the Fund Agencies track investments at a level of detail greater than what is required to record issues, redemptions, and maturities within the InvestOne accounting system. Fund Agencies send, via e-mail or file, a request to deposit or withdraw funds from a specific case.

A FIB accountant enters the request into FedInvest or the InvestOne accounting system on behalf of the Fund Agency. Then two FIB accountants review and digitally stamp the request. A confirmation of results is available in FedInvest to the FedInvest user the same day.

On the following business day, a FIB accountant compares the InvestOne report (Prior Day Review) to the requests submitted by the Fund Agency to ensure transactions were properly entered into the InvestOne accounting system. The FIB accountant documents this review by digitally stamping the request.

Complementary Fund Agency Controls

Fund Agencies should establish controls to:

- Ensure that the submission of investment/redemption requests in FedInvest is accurate and completed prior to 3:00 pm EST (11:00 am EST for Zero Coupon Bonds).
- Notify FIB if the investment/redemption requests have been processed incorrectly so that correcting transactions may be processed before 3:00 pm EST.
- Review investment/redemption/maturity/interest confirmations and Monthly Statements of Account to ensure that each request was processed accurately, timely, and in accordance with Fund Agency instructions.
- Ensure that access to FedInvest is restricted to properly authorized individuals.
- Review detailed case management transactions to ensure that each request was processed accurately, timely, and in accordance with Fund Agency instructions.

Tests of Operating Effectiveness and Results of Testing

1. For a selection of business days, inspected documentation of the daily procedures performed by the FIB accountants regarding the market-based securities pricing and determined that the FIB accountants followed the established policies and procedures, as evidenced by the FIB accountants' sign off on the daily procedures checklist.
2. For a selection of business days, inspected the daily procedures checklist and determined that the FIB accountants performed a yield curve comparison to identify significant variances between the ODM price file for market-based securities and the composite Bloomberg generic pricing source obtained from the Bloomberg terminal.
3. For a selection of business days, inspected the daily procedures checklist and determined that the FIB accountant ran the desktop COBOL program that compares the FIB calculated prices for market-based securities to the prices contained in the ODM files producing an exception report of any differences.
4. For a selection of business days, inspected the daily procedures checklist, the InvestOne accounting system security definition screens and the FedInvest screen and determined that

two FIB accountants compared the InvestOne accounting system security definition screens to the ODM email received to ensure the rate was recorded accurately by noting their digital signatures on the rate sheet.

5. For a selection of months, inspected documentation of the SAT provided pricing for par-value securities and determined that the SAT team leader reviewed the rates provided to FIB, the FIB accountant accurately loaded the rates into the InvestOne accounting system, and a second FIB accountant compared the rates from the InvestOne accounting system security definition screens to the rates provided by SAT to ensure the rate was accurately recorded.
6. There were no investments and redemptions of Zero Coupon Bonds during the period.
7. Inspected investment/redemption processing request procedures and observed the FIB accountant process investment/redemption requests and determined that FIB processed investment/redemption requests in accordance with the established procedures.
8. For a selection of investment/redemption requests, inspected signed request for investment/redemption forms or emailed authorization and determined that: FIB was authorized by the Fund Agency to process each investment/redemption request prior to entry into FedInvest or the InvestOne accounting system, the documented procedures were followed, the investment/redemption request was initialed by the accountant recording the entry, the entry was properly reviewed and initialed by two other FIB accountants after entry into the FedInvest or the InvestOne accounting system, a comparison of each request form to the Prior Day Review report was documented by a FIB accountant, the request was recorded accurately and in a timely manner, and documentation is maintained and available.
9. For a redemption request entered through FedInvest, inspected the confirmation and determined that the redemption was recorded accurately and processed as requested in a timely manner.
10. For an investment request entered through FedInvest, observed the InvestOne accounting system automatically assign a memo number, apply the price/rate and generate and post an on-line confirmation, and determined that the request was recorded accurately and processed in a timely manner.
11. Observed the FIB accountant use the FedInvest RPA module to run the Post Par Value Sell Transactions and process, post, and assign memo numbers to the pending redemption requests in the InvestOne accounting system using the redemption rules for par-value securities and determined that the FIB accountant followed the established policies and procedures. Further, reperformed the system's selection of the security redeemed for one Fund Agency redemption request and determined that the system properly applied the redemption rules for par-value securities.
12. For a selection of business days, inspected documentation of the daily procedures performed by the FIB accountants regarding par-value security redemptions and determined that the FIB accountants followed the established policies and procedures, as evidenced by the FIB accountants' sign off on the daily procedures checklist.
13. For a selection of business days, inspected documentation of the daily procedures performed by the FIB accountants and determined that the FIB accountant ran a report for all one-day investments from the previous business day and the current day's maturities, reviewed the

report to ensure that all one-day investments matured and paid interest, and documented approval by initialing the daily checklist.

14. For a matured investment, inspected the corresponding confirmation and determined that the InvestOne accounting system automatically matured the security on the maturity date, accurately recorded the transaction in a timely manner, and posted an on-line confirmation on FedInvest.
15. For a selection of case management deposit or withdrawal requests, determined that the request was digitally signed by the FIB Accountant recording the entry, the entry was properly reviewed and digitally signed by two other FIB accountants after entry into the FedInvest or InvestOne accounting system, a comparison of each request form to the Prior Day Review report was documented by the FIB accountant, the request was recorded accurately and in a timely manner, and documentation is maintained and available.

No exceptions noted.

Control Objective 10 – Confirmations

Controls provide reasonable assurance that confirmations are processed in a timely and accurate manner.

Description of Controls

The InvestOne accounting system assigns a memo number for transactions entered in FedInvest that are posted immediately into the InvestOne accounting system.

A confirmation number is created for each transaction entered into FedInvest that is not processed immediately upon entry (e.g., market based transactions before prices are loaded, Zero Coupon Bonds, and special issue par-value redemptions) to notify the user that the transaction is in the processing queue. Once transactions are processed into the InvestOne accounting system, the InvestOne accounting system assigns an individual memo number that replaces the confirmation number. Memo numbers are provided to Fund Agency FedInvest users through the interface between FedInvest and the InvestOne accounting system.

For each entry into the InvestOne accounting system, the system automatically generates and posts an on-line confirmation of the transaction available in FedInvest for Fund Agency reconciliation. Fund agencies access FedInvest using their user ID and password to obtain confirmations.

Complementary Fund Agency Controls

Fund Agencies should establish controls to:

- Track investment/redemption confirmations to ensure that the Fund Agency FedInvest user correctly processes all requests.
- Review and reconcile all transaction confirmations to determine that they are accurate and complete, and report discrepancies to FIB so correcting transactions may be processed before 3:00 pm EST.
- Ensure that access to FedInvest is restricted to properly authorized individuals.
- Review investment/redemption/maturity/interest confirmations and Monthly Statements of Account to ensure that each request was processed accurately, timely, and in accordance with Fund Agency instructions.

Tests of Operating Effectiveness and Results of Testing

1. For an investment request, a redemption request, and a maturity of securities, inspected FedInvest and determined that FedInvest automatically generated and posted an on-line confirmation that accurately reflected the transaction and indicated that the transaction was processed accurately and timely.
2. For an investment request, a redemption request, and a maturity of securities, observed the processing of transactions in the InvestOne accounting system and noted that the InvestOne accounting system automatically assigned a memo number and determined the request was recorded accurately and in a timely manner.

3. For an investment or redemption request entered into FedInvest but not immediately processed into the InvestOne accounting system (due to the fact that pricing information for the investment was not yet loaded or that close of business par-value redemption rules were not yet applied), observed FedInvest and noted that a confirmation number was automatically assigned and an on-line confirmation was generated to indicate that the transaction was in the processing queue. Observed FedInvest after the pricing information was loaded or the business day was closed and noted that the confirmation number assigned upon data entry was replaced with a memo number and that the request was recorded accurately and in a timely manner.

No exceptions noted.

Control Objective 11 – Fund Balance Adjustment

Controls provide reasonable assurance that Fund Agency account balance adjustments, due to errors in processing or Fund Agency errors, are processed completely and accurately.

Description of Controls

Fund Agencies should detect errors by reviewing confirmations. Fund Agencies notify FIB of the errors and send adjustment information. FIB maintains a documented procedure detailing the steps that need to be performed when making a correction or adjustment. The Correction/Adjustment Check List documents the tasks that generally need to be completed when making a correction or adjustment. When necessary, a FIB accountant enters an adjustment or corrects the original transaction in the InvestOne accounting system. The InvestOne accounting system processes the adjustment and a confirmation of the adjustment or corrected transaction is available in FedInvest to the FedInvest user.

The FIB accountant prepares a correction package and completes the Correction/Adjustment Check List when adjustments are necessary. Two other FIB accountants, (the team leader and a reviewing FIB accountant), review and approve the correction package and any transactions posted to the InvestOne accounting system, PARS, and/or IPAC, as applicable. The review and approval process is completed by determining the necessary steps on the Correction/Adjustment Check List have been performed.

A FIB accountant runs a report from the FIB Menu (a COBOL collection of desktop programs) to create Monthly Statements of Account, which documents all transactions processed for a particular month, including any necessary adjustments. The Monthly Statement of Account is made available in FedInvest and on the BPD's TreasuryDirect website for review by the Fund Agencies.

Complementary Fund Agency Controls

Fund Agencies should establish controls to:

- Review investment/redemption/maturity/interest confirmations and Monthly Statements of Account to ensure that each request was processed accurately, timely, and in accordance with Fund Agency instructions.
- Review adjustments and make prompt and appropriate journal entries to the accounting records, to adjust the investment account balances and related interest.
- Review Monthly Statements of Account to verify that adjustments were processed completely and accurately.

Tests of Operating Effectiveness and Results of Testing

1. Inquired of management and inspected written procedures to determine that the consistent use of the procedures is likely to help prevent deviations from operations as described in the control description.
2. For a selection of error corrections and adjustments, inspected the correction package and the completed Correction/Adjustment Check List and determined that the corrections/adjustments were performed in accordance with the established procedures.
3. For a selection of fund balance adjustments, inspected the Fund Agency's adjustment request and the Correction/Adjustment Check List and determined that two other FIB accountants, including the team leader, documented their review of each adjustment request and that the request was processed completely and accurately.
4. Observed the FIB accountant prepare and post the Monthly Statement of Account for one month and noted that the FIB accountant followed the established policies and procedures.
5. For a selection of Monthly Statements of Accounts, inspected the Monthly Statements of Accounts on FedInvest and determined that they were posted by the first working day after the end of the month and were made available for review to the Fund Agencies.
6. For a selected adjustment, inspected the respective Monthly Statement of Account and determined that the Monthly Statement of Account indicated that the adjustment was processed accurately.

No exceptions noted.

Control Objective 12 – Recordkeeping

Controls provide reasonable assurance that support related to the investment accounts is documented and readily available.

Description of Controls

Transaction confirmations and the Monthly Statements of Account containing InvestOne accounting system data are available in FedInvest to the FedInvest users. The Monthly Statement of Account is also available on the TreasuryDirect website. FIB maintains file copies of the investment/redemption requests that were processed by FIB on behalf of the Fund Agency.

On a daily basis, FIB receives market-based security price files from ODM and FRB of New York, Zero Coupon Bond pricing as needed from ODM, and a daily email for the one-day certificate rate from ODM. On a monthly basis, FIB receives via email the special issue par-value security rates from SAT. These quotations document the security prices/rates and are retained for future reference for a period of twenty years in accordance with the BPD document retention policies. FIB files and retains Daily Principal Totals Reports, which detail all daily principal transactions and are reconciled to the Balances-Summary report daily.

FIB maintains copies of the Notification of Principal & Interest (P&I) Credit, which report principal and interest activity on certain Marketable or Agency Security investments held at FRB of New York. Each month, FIB prepares the Standard Form 1132, *Investment Funds Summary Holding Report* (SF1132), Standard Form 1133-1, *Marketable Securities Held by GAS Agencies* (SF1133-1), and Standard Form 1134-1, *Agency Securities Held by GAS Agencies* (SF1134-1) reports, which document each Fund Agency's account balance, including securities held in safekeeping at FRB New York. These reports are published on the TreasuryDirect website.

Tests of Operating Effectiveness and Results of Testing

1. For a selection of Monthly Statements of Account, inspected the Monthly Statements of Account and determined that the reports were maintained and readily available.
2. For a selection of investment/redemption requests, inspected the confirmations and determined that confirmations were maintained and readily available.
3. For a selection of investment/redemption requests, inspected the Request for Investment/Redemption forms and determined that documentation was maintained and available.
4. For a selection of dates, inspected the Daily Principal Totals Reports and determined that the FIB accountants reconciled the reports to the Balances-Summary report, the reconciliation was mathematically correct and documented, and the documentation was maintained and available.
5. For a selection of transactions or dates, inspected pricing records and determined that pricing documentation was maintained and available.
6. For a selection of months, inspected the Notification of P&I Credit and determined that the documentation was maintained and available.

7. For a selection of months, inspected the SF1132, SF1133-1, and SF1134-1 reports and determined that the reports were maintained and readily available.

No exceptions noted.

Control Objective 13 – Segregation of Duties

Controls provide reasonable assurance that the duties of authorizing, processing information, and verifying documents are appropriately segregated.

Description of Controls

FIB has established policies and procedures documenting that the following responsibilities are segregated for Fund Agencies using FedInvest:

- Fund Agencies are responsible for requesting access to FedInvest.
- External FedInvest users must have their supervisor's approval along with OPDA ISSR approval documented on an Access Request/Revoke form before access is granted to or revoked from FedInvest.
- Access permissions are assigned to FedInvest and the InvestOne accounting system users commensurate with their job responsibilities by the OPDA ISSRs.
- FIB Accountants set up accounts in InvestOne accounting system/FedInvest and OPDA ISSRs set up users in InvestOne accounting system/FedInvest.
- Fund Agencies access FedInvest and submit investment purchase and redemption requests.
- FedInvest interfaces with the InvestOne accounting system which processes and posts the investment and redemption requests and provides the data for the confirmations that are available in FedInvest to the FedInvest users.

FIB has established policies and procedures documenting that the following responsibilities are segregated when FIB processes transaction requests on behalf of the Fund Agencies:

- Prior to February 29, 2012, Fund Agencies prepared and submitted investment/redemption requests to FIB via fax, email, or hard copy form if the agency could not access FedInvest. Subsequent to February 29, 2012, Fund Agencies prepare and submit investment/redemption requests to FIB via email if the agency cannot access FedInvest.
- FIB personnel enter the investment purchase or redemption request into FedInvest or the InvestOne accounting system.
- The InvestOne accounting system processes the investment and redemption requests and provides the data for the confirmations that are available in FedInvest to the FedInvest users.
- To verify that transactions have been processed accurately, two FIB accountants other than the one who entered the transaction will review and compare a copy of the investment/redemption request from the Agency to the data entered into the InvestOne accounting system. Both the accountant entering the transaction and those reviewing it digitally stamp the file copies to document that the procedure has been performed.
- On the following business day, a FIB accountant compares the InvestOne report (Prior Day Review Report) to the investment/redemption request submitted by the Fund Agency to ensure transactions were properly entered into the InvestOne accounting system. The FIB accountant documents completion of this review by digitally stamping the investment/redemption request.

Complementary Fund Agency Controls

Fund Agencies should establish controls to:

- Ensure that access to FedInvest is restricted to properly authorized individuals.

Tests of Operating Effectiveness and Results of Testing

1. Inspected investment/redemption processing request procedures, observed the FIB accountant process investment/redemption requests, and determined that FIB processed the investment/redemption requests in accordance with the established procedures.
2. For a selection of investment/redemption requests, inspected signed Request for Investment/Redemption forms or emailed authorization and determined that: FIB was authorized by the Fund Agency to process each investment/redemption request prior to entry into the InvestOne accounting system, the documented procedures were followed, the investment/redemption request was initialed by the accountant recording the entry, the entry was properly reviewed and initialed by two other FIB accountants after entry into the InvestOne accounting system, a comparison of each request form to the Prior Day Review report was documented by a FIB accountant, the request was recorded accurately and in a timely manner, and documentation is maintained and available.

No exceptions noted.

Control Objective 14 – Interest Calculation and Payments

Controls provide reasonable assurance that interest is calculated accurately and interest reinvestments are completed accurately.

Description of Controls

Interest

FIB has documented the methods for calculating interest for Government Account Series securities in written desktop procedures. One-day securities pay interest daily, special issue par-value securities pay interest semi-annually on June 30 and December 31, and market-based notes, bonds and TIPS pay interest semi-annually on various dates. The market-based bills and Zero Coupon Bonds do not pay periodic interest and therefore interest income is equal to the discount earned. The InvestOne accounting system calculates the amount of interest to be paid when holdings are redeemed or interest payments are due. The InvestOne accounting system calculates interest based on the security set-up and investment terms in the system in accordance with the requirements of 31 CFR Chapter II, Part 306, Subpart E, and Part 356, Appendix B, with the exception of one-day securities. The InvestOne accounting system calculates interest for one-day securities using the rate that FIB receives from ODM.

The InvestOne accounting system reports the results of the calculations on confirmations available in FedInvest for Fund Agency reconciliation and re-computation. The confirmation generation process is summarized as follows.

Fund Agencies access FedInvest using their user ID and password. Since FedInvest interfaces with the InvestOne accounting system, the InvestOne accounting system data is displayed on the confirmations that are immediately available in FedInvest to the FedInvest user.

The InvestOne accounting system also calculates certain accrued interest amounts and Inflation Compensation Earned (ICE) on the TIPS. The InvestOne accounting system calculates ICE in accordance with the requirements of 31 CFR Chapter II, Part 356, Appendix B.

FIB accountants can verify the accuracy of the InvestOne accounting system interest calculations by manually recalculating interest for redemptions, maturities and semi-annual payment dates.

A COBOL program uses extracted data from the InvestOne accounting system to generate Monthly Statements of Account (a cash basis statement that reflects the Agency's investment reporting, and shows interest income paid on each security). To create the Monthly Statement of Account, a FIB accountant runs the COBOL program for both tax lot and summary levels. This creates two text files for each Fund. The FIB accountant sends the tax lot and summary level Monthly Statement of Account via email to the BPD Web Content Management for review and publishing in FedInvest and on the TreasuryDirect website.

The Monthly Statements of Account and confirmations are available to the Fund Agencies for reconciliation with their accounting records. In addition, previous months' statements are available for reference purposes. If the Fund Agency identifies any errors, the Fund Agency should inform FIB so the necessary adjustments may be made.

Amortization of Premiums and Discounts

The InvestOne accounting system automatically calculates amortization of discount/premium based on the security set-up and investment terms in the system. FIB has documented the methods for calculating the discount/premium amortization in written desktop procedures. The system calculates amortization for market-based bills (i.e., short-term securities) using the straight-line method and for market-based notes/bonds/TIPS/Zero Coupon Bonds (i.e., long-term securities), using the level yield method, which approximates the interest method. A COBOL program is used to create monthly Accrual Confirmation and Accrual Activity Reports for each account, which contain the amortization amounts that are published in FedInvest for Fund Agency reconciliation and re-computation. To create the Accrual Confirmation and Accrual Activity Reports, a FIB accountant selects and runs the “accrual report” option from the FIB report menu. This generates two text files that include the Accrual Confirmation and Accrual Activity Reports for each fund. The FIB accountant sends the Accrual Confirmation and Accrual Activity Reports via email to the BPD Web Content Management for review and publishing in FedInvest. In addition, previous months’ statements are available for reference purposes. If the Fund Agency identifies any errors, the Fund Agency should inform FIB so the necessary adjustments may be made.

Accrued Interest

The InvestOne accounting system automatically calculates accrued interest based on the security set-up and investment terms in the system. FIB has documented the methods for calculating the accrued interest in written desktop procedures. The FIB Menu accrual report program reports the results of interest accruals in the monthly Accrual Confirmation and Accrual Activity Report and publishes the report in FedInvest for Fund Agency reconciliation and re-computation. To create the Accrual Confirmation and Accrual Activity Reports, a FIB accountant selects and runs the “accrual report” option from the FIB report menu that generates two text files that include the Accrual Confirmation and Accrual Activity Reports for each fund. The FIB accountant sends the Accrual Confirmation and Accrual Activity Reports via email to the BPD Web Content Management for review and publishing in FedInvest. In addition, previous months’ statements are available for reference purposes. If the Fund Agency identifies any errors, the Fund Agency should inform FIB so the necessary adjustments may be made.

Interest Reinvestments

FIB prepares an Investment Rollover Report for the Office of Fiscal Projections that includes principal balances from the InvestOne accounting system and interest accruals that are associated with those balances as of the date of the report. For the December 31 interest payments on special issue par-value securities, the interest is reinvested into a certificate of indebtedness maturing the following June 30. For June 30 maturities and interest payments, FIB receives written documentation from each agency that holds special issue par-value securities that states how they want their interest and maturities reinvested. June 30 is the only date in which agencies can invest in longer term special issue par-value securities (par-value bonds). OPDA reviews and approves the Investment Rollover Report for accuracy and sends the report to Treasury headquarters. The Fiscal Assistant Secretary of Treasury approves and returns the Investment Rollover Report for FIB to process on June 30. The interest-reinvestment process for the non-par-value securities is the same as and subject to the regular investment process discussed in Control Objective 9.

Interest Allocations

Certain Fund Agencies have a requirement to hold monies in escrow pending legal determination of ownership, so FIB accommodates them by establishing a network of sub-accounts, or cases, that in aggregate equal the fund's investment balance. According to their individual needs, Fund Agencies subscribing to detailed case management services establish relationships between their investments and their cases. For those agencies with a pooled investment strategy, the total balance of all cases equals the total balance of all investments. Agencies with a non-pooled investment strategy track each case balance with an equivalent investment.

Non-pooled investment funds allocate interest directly to a specific case since there is a tie between the cases and the investments. Pooled investment funds must allocate interest to cases by calculating the portion of total investment interest that should be allocated to a case by applying the percentage of a specific case as a total of all cases to the total interest. Case and investment balances are reconciled for pooled investment funds both prior to and after the allocation of interest by a FIB accountant.

The formula used to calculate and allocate interest transactions to case balances includes withholding fees as required by statute or to reimburse FIB for providing additional investment accounting services. Fee amounts are provided by the Fund Agency and input by a FIB accountant. Then two FIB accountants review and digitally stamp the request. In the event the interest calculations are less than the amount of fees to be withheld, the fees are withheld from the principal balance.

Complementary Fund Agency Controls

Fund Agencies should establish controls to:

- Ensure that the requested investment returns the appropriate amount of interest to meet their investment income goals.
- Reconcile interest payments and allocations received as presented in the confirmations and Monthly Statements of Account and recalculate interest for accuracy.
- Approve reinvestments of interest after review for accuracy, completeness, and compliance with instructions.
- Recalculate interest accrual and amortization of premium and/or discount and compare the results to the BPD provided monthly Accrual Confirmation and Accrual Activity Reports.
- Report any interest accrual discrepancies noted on the monthly Accrual Confirmation and Accrual Activity Reports to BPD for resolution.
- Report any premium and/or discount amortization discrepancy noted on the monthly Accrual Confirmation and Accrual Activity Reports to BPD for resolution.

Tests of Operating Effectiveness and Results of Testing

1. Inspected interest calculation procedures, re-performed the system's calculation of interest, and determined that interest calculation transactions were processed in accordance with procedures.

2. Inspected interest calculation procedures and determined that they were consistent with the requirements of 31 CFR, Chapter II, Part 306, Subpart E and Part 356, Appendix B.
3. For a selection of interest transactions including each type of GAS security other than one-day securities, recalculated the interest amounts, amortization, and ICE and determined that the system calculations were in accordance with the CFR requirements and mathematically accurate.
4. For a selection of one-day securities, recalculated the interest income and determined that the system calculations were mathematically accurate and complied with the desktop procedures.
5. For a selection of transactions processed in the InvestOne accounting system, inspected confirmations and determined that subsequent to transactions posting in the InvestOne accounting system, the system automatically generated and posted an on-line confirmation of the transaction available in FedInvest to Fund Agencies.
6. Inspected a confirmation and determined that the confirmation contained appropriate and necessary information to allow for Fund Agency reconciliation and re-computation of transactions.
7. For a selection of Accrual Confirmation Reports and Accrual Activity Reports, inspected FedInvest and determined that the reports were available in FedInvest to Fund Agencies.
8. Observed the FIB accountant generate an Accrual Confirmation Report and Accrual Activity Report and email them to BPD Web Content Management for review and publishing in FedInvest. Attempted to modify the published Accrual Confirmation and Accrual Activity Reports and determined that the modification of the reports was prevented.
9. For a selection of transactions from the Accrual Confirmation Reports, recalculated the amortization of premium and discount, and determined that the amortization was calculated accurately or the level yield method amortization method utilized by FIB for long-term securities approximated the interest method. Inspected the Accrual Activity Reports for the same date as the Accrual Confirmation Reports and determined that the amortization recorded for the month was also calculated and reported accurately and used the appropriate amortization method (short term = straight line, long term = level yield/effective interest).
10. For a selection of Accrual Confirmation Reports and Accrual Activity Reports, inspected the reports and determined that they contained the necessary information for Fund Agencies to reconcile and re-compute accruals and amortization and that the information documented was accurate.
11. For a selection of Investment Rollover Reports, inspected the reports and determined that FIB management documented its review and approval of each report prior to distributing it to the respective Fund Agencies and that FIB maintained the written interest and maturities reinvestment requests from the Fund Agencies.
12. Inspected the June 2012 Investment Rollover Report and determined that FIB management documented its review and approval of each rollover plan in the Investment Rollover Report and the Fiscal Assistant Secretary of the Treasury approved the report prior to processing.

13. For a selection of par-value securities interest reinvestments, inspected the supporting instructions and determined that reinvestments were completed in accordance with Fund Agency instructions.
14. For a selection of case management investment fund interest allocations, re-performed the interest allocations and determined that the formula was properly applied.
15. For a selection of fund interest earnings and withholding fee allocations for pooled investments, inspected documentation and determined that an FIB accountant reconciled the case balances both before and after the allocation, accurately input the fee amounts into InvestOne, and that two FIB accountants reviewed and digitally stamped the request.

No exceptions noted.

Control Objective 15 – Statement Rendering

Controls provide reasonable assurance that monthly reports are processed in a timely and accurate manner.

Description of Controls

Monthly Statements of Account

A FIB Menu program extracts data from the InvestOne accounting system to produce the Monthly Statement of Account that details cash basis reporting of a Fund Agency's beginning balance, investment/redemption activity, unrealized discount, premium/discount recognized, interest earnings, adjustments processed and ending balance for the month. These reports are available in FedInvest and on the TreasuryDirect website by the 1st working day after the end of the month to be accessed by Fund Agencies for transaction reconciliation, investment monitoring, and investment strategy initiatives. To create the report, the FIB accountant runs a COBOL program that uses InvestOne accounting system data to create text files of the Monthly Statements of Account at both the summary level and tax lot level for each fund. The FIB accountant sends the tax lot and summary level Monthly Statements of Account via email to the BPD Web Content Management for review and publishing in FedInvest and on the TreasuryDirect website. In addition, previous months' statements are available for reference purposes. If the Fund Agency identifies any errors, the Fund Agency should inform FIB so the necessary adjustments may be made. FIB's policy requires that FIB accountants complete and forward Monthly Statements of Account at the tax lot and summary level to the BPD Web Content Management for review and publishing in FedInvest and on the TreasuryDirect website by the 1st working day after the end of the month.

IPAC and Classification Transactions and Accountability File

Federal Program Agencies are required to report the monthly investment activity to Treasury, Financial Management Service (FMS). This reporting is generally accomplished using the monthly SF-224, *Statement of Transactions*. However, FIB is able to report daily investment activity to FMS on behalf of the Fund Agencies by submitting FIB's daily IPAC file to FMS. FIB creates the FIB daily IPAC file, which is a configured system report, using a mainframe job. The file includes the Fund Agency's Treasury Account Symbol (TAS) and the Business Event Type Code (BETC) allowing the activity to be classified in the FMS Central Accounting and Reporting System (CARS) Account Statement, eliminating the need for the monthly SF-224 report for investment transactions. FIB reports the investment activity for all Fund Agencies.

Additionally, FIB prepares a daily Classification Transactions and Accountability file to report non-IPAC activity, which consists of reclassification entries. FIB creates the Classification Transactions and Accountability file using a mainframe program and the InvestOne accounting system. FIB uploads the Classification Transactions and Accountability file to FMS using the CARS system. FIB instructs Fund Agencies to obtain access to the FMS CARS Account Statement application in order to verify the activity submitted by FIB. The daily CTA file replaced the monthly partial SF-224 that was in effect during August and September of 2011 and includes the same data.

Complementary Fund Agency Controls

Fund Agencies should establish controls to:

- Review FIB provided Monthly Statements of Account to ensure that transactions are recorded accurately and timely, and report discrepancies to FIB so correction processes may occur.
- Reconcile investment activity from the FMS application CARS Account Statements to the FIB provided Monthly Statements of Account to verify that investment activity is being properly reported by FIB on the Fund Agencies' behalf.

Tests of Operating Effectiveness and Results of Testing

1. For a selection of Monthly Statements of Account, inspected the Monthly Statements of Account on FedInvest and determined that they were posted by the first working day after the end of the month.
2. For a selection of transactions, inspected the respective Monthly Statements of Account and determined that the transactions were accurately reflected in the Monthly Statements of Account.
3. Inquired of FIB management regarding the process of sending the tax lot and summary level Monthly Statements of Account via email to the BPD Web Content Management. Observed the FIB accountant generate the Monthly Statements of Account and accessed the published reports on the web and determined that they cannot be modified and re-saved by anyone outside of the BPD Web Content Management team.
4. For a selection of posted Monthly Statements of Account, attempted to modify the published Monthly Statements of Account and determined that the modification of the statement was prevented.
5. Observed the FIB accountant process the daily IPAC file and noted that the file contained the Fund Agency's Treasury Account Symbol and the Business Event Type Code.
6. For a selection of business days, inspected documentation of the daily procedures performed by the FIB accountants regarding the daily IPAC file submission and determined that the accountants followed the established policies and procedures, as evidenced by the FIB accountant's initials on the daily procedures checklist.
7. For a selection of daily CTA file submissions, inspected the submissions and determined that the FIB accountant performed the appropriate procedures, as evidenced by the FIB accountant checking the applicable procedures off the daily checklist.

No exceptions noted.

**V. OTHER INFORMATION PROVIDED BY THE
BUREAU OF THE PUBLIC DEBT**

CONTINGENCY PLANNING

System Back Up

The InvestOne accounting system has a contingency plan managed by the Division of Systems and Program Support (DSPS). There is a formal Division of Federal Investments (DFI), Business Continuity Plan (BCP), which is part of a larger BCP for the Office of Public Debt Accounting (OPDA) and the Bureau of the Public Debt (BPD) Continuity of Operations Plan (COOP). The Federal Investments Branch (FIB) performs tests on all essential daily InvestOne accounting system functions¹³

The Office of Information Technology (OIT) performs backups of the InvestOne accounting system on a regular schedule. OIT retains the backup tapes according to a pre-set schedule¹⁴ at an offsite facility. OIT stores one copy in the production tape library, and the other copy is shipped to an offsite facility. Long-term storage of tapes is provided through a contract with an offsite storage facility. If a backup tape needs to be restored, the request will be made from the DSPS. OIT will then load the backup tape.

Continuity of Operations

A fire alarm and sprinkler system that is managed, maintained, and tested by the building management protects the data center¹⁵. Sprinkler heads are located in the ceiling of each room of the buildings. This is a pre-action wet pipe system with individual heads that discharge water. The pre-action system is charged with nitrogen so accidental leaks or corrosion will not allow the discharge of water in the data center.¹⁶

The DFI Business Continuity Plan calls for resumption of operations and critical applications of essential functions within a pre-set time frame¹⁷. The InvestOne accounting system has been classified as a critical application.

As part of the DFI BCP, should the facility supporting InvestOne accounting system and FedInvest become unavailable, designated FIB personnel will relocate to reestablish their daily operations. When applicable, BPD will revert to manual procedures until the mainframe and InvestOne accounting system are fully recovered.

¹³ FIB performs emergency telework tests on all essential InvestOne functions a minimum of quarterly. The focus of these tests is to provide assurances that connectivity can be made and these functions will continue with minimum interruption during any emergency that may occur with or without warning.

¹⁴ OIT uses IBM's Tape Management System to perform backups daily at 6:00 PM. OIT retains the first backup for 15 days.

¹⁵ Alarms are active 24 hours a day, 7 days a week, and are tied in to the local fire department over phone lines for spontaneous notification

¹⁶ In the event the main building, where the InvestOne accounting system is run, becomes inoperable, mainframe operations would be relocated to the BPD contingency facility in accordance with the OIT data center recovery plan. This facility employs a warm site strategy for recovery of mainframe operations. OIT has contracted with the Financial Management Service to provide mainframe equipment for this site.

¹⁷ 4 hour time frame.