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June 25, 2015

Ms. Sheryl Morrow
Commissioner
Bureau of the Fiscal Service
Department of the Treasury

Management Report: Improvements Needed in the Bureau of the Fiscal Service's Information Systems Controls

Dear Ms. Morrow:

In connection with our audit of the consolidated financial statements of the U.S. government,¹ we audited and reported on the Schedules of Federal Debt Managed by the Bureau of the Fiscal Service (Fiscal Service) for the fiscal years ended September 30, 2014, and 2013.² As part of this audit, we performed a review of information systems controls over key Fiscal Service financial systems relevant to the Schedule of Federal Debt.

As we reported in connection with our audits of the Schedules of Federal Debt for the fiscal years ended September 30, 2014, and 2013, Fiscal Service maintained, in all material respects, effective internal control over financial reporting relevant to the Schedule of Federal Debt as of September 30, 2014, based on criteria established under 31 U.S.C. § 3512(c), (d), commonly known as the Federal Managers' Financial Integrity Act. Those controls provided reasonable assurance that misstatements material in relation to the Schedule of Federal Debt would be prevented, or detected and corrected, on a timely basis. During fiscal year 2014, Fiscal Service made significant efforts and sufficiently addressed most of the internal control issues related to a significant deficiency in internal control³ that we reported for fiscal year 2013 concerning

¹31 U.S.C. § 331(e)(2). Because the Bureau of the Fiscal Service is a bureau within the Department of the Treasury, federal debt and related activity and balances managed by it were also significant to the consolidated financial statements of the Department of the Treasury (see 31 U.S.C. § 3515(b)).

²GAO, *Financial Audit: Bureau of the Fiscal Service's Fiscal Years 2014 and 2013 Schedules of Federal Debt*, [GAO-15-157](#) (Washington, D.C.: Nov. 10, 2014).

³A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis.

information systems controls.⁴ While we identified some continuing and new control deficiencies relating to information systems, we do not consider them individually or collectively to be material weaknesses or significant deficiencies. Nevertheless, such control deficiencies warrant the attention and action of management.

Fiscal Service relies on a number of information systems to manage the federal debt. In late fiscal year 2011, the Department of the Treasury (Treasury) began consolidating the data centers and related operations of Treasury's Bureau of the Public Debt and Financial Management Service into what is now Fiscal Service. In addition, in fiscal year 2013, Fiscal Service began testing a new general ledger system and implemented the new system in fiscal year 2014. These changes may have contributed to some of the control deficiencies that we identified. Fiscal Service's continuing consolidation efforts can introduce risks that require corresponding changes to controls and can hinder the effective operation of controls. As such, it will be important that management sustains focus on assessing associated risks, monitoring the effectiveness of the operation of controls, and designing and implementing effective internal controls.

This report presents the deficiencies we identified during our fiscal year 2014 testing of information systems controls over key Fiscal Service financial systems that are relevant to the Schedule of Federal Debt. This report also includes the results of our follow-up on the status of Fiscal Service's corrective actions to address information systems control-related deficiencies and associated recommendations contained in our prior years' reports that were open as of September 30, 2013. In a separately issued Limited Official Use Only report, we communicated detailed information regarding our findings and related recommendations to the Commissioner of the Bureau of the Fiscal Service.

We also assessed information systems controls over key financial systems maintained and operated by the Federal Reserve Banks (FRB) on behalf of Treasury relevant to the Schedule of Federal Debt. We issued a separate report to the Board of Governors of the Federal Reserve System on the results of that assessment.⁵

Results in Brief

During fiscal year 2014, we identified nine new information systems general control deficiencies related to security management,⁶ access controls,⁷ and configuration management.⁸ In the

⁴GAO, *Financial Audit: Bureau of the Fiscal Service's Fiscal Years 2013 and 2012 Schedules of Federal Debt*, [GAO-14-173](#) (Washington, D.C.: Dec. 12, 2013).

⁵GAO, *Management Report: Areas for Improvement in the Federal Reserve Banks' Information Systems Controls*, [GAO-15-413R](#) (Washington, D.C.: Apr. 6, 2015).

⁶Security management provides a framework and continuing cycle of activity for managing risk, developing and implementing effective security policies, assigning responsibilities, and monitoring the adequacy of the entity's computer-related controls.

⁷Access controls limit access or detect inappropriate access to computer resources such as data, programs, equipment, and facilities, thereby protecting them from unauthorized modification, loss, or disclosure.

⁸Configuration management prevents unauthorized changes to information system resources, such as software programs and hardware configurations, and provides reasonable assurance that systems are configured and operating securely and as intended and only authorized and fully tested changes are made.

Limited Official Use Only report, we made 10 recommendations to address these control deficiencies.

In addition, during our follow-up on the status of Fiscal Service's corrective actions to address information systems control-related deficiencies and associated recommendations contained in our prior years' reports that were open as of September 30, 2013, we determined that corrective actions were complete for 18 of the 22 open recommendations and corrective actions were in progress for each of the four remaining open recommendations related to three deficiencies in access controls and configuration management.

The potential effect of these new and continuing deficiencies on the Schedule of Federal Debt financial reporting for fiscal year 2014 was mitigated primarily by Fiscal Service's compensating management and reconciliation controls designed to detect potential misstatements on the Schedule of Federal Debt.

The Commissioner of the Bureau of the Fiscal Service provided comments on the detailed findings and recommendations in the separately issued Limited Official Use Only report. In those comments, the Commissioner stated that, subsequent to September 30, 2014, three of the nine new information systems control-related deficiencies, as well as one of the three deficiencies that remained from our prior years' audits, have been successfully remediated. Additionally, the Commissioner cited planned corrective actions to address the remaining open information systems control-related deficiencies.

Background

Treasury is authorized by Congress to borrow money backed by the full faith and credit of the United States to fund federal operations. Treasury is responsible for prescribing the debt instruments and otherwise limiting and restricting the amount and composition of the debt. Treasury is also responsible for issuing and redeeming debt instruments, paying interest to investors, and accounting for the resulting debt. In addition, Treasury maintains an investment program for federal government accounts, including trust funds that have legislative authority to invest temporary cash reserves not needed for current benefits and expenses.

As of September 30, 2014, and 2013, federal debt managed by Treasury's Fiscal Service totaled about \$17,810 billion and \$16,732 billion, respectively, primarily for moneys borrowed to fund the federal government's operations. These balances consisted of approximately (1) \$12,785 billion and \$11,976 billion of debt held by the public as of September 30, 2014, and 2013, respectively, and (2) \$5,025 billion as of September 30, 2014, and \$4,756 billion as of September 30, 2013, of intragovernmental debt holdings. Total interest expense on federal debt managed by Fiscal Service for fiscal years 2014 and 2013 was about \$433 billion and \$425 billion, respectively.

Treasury relies on a number of interconnected financial systems and electronic data to process and track the money that it borrows, to account for the securities it issues, and to manage the federal debt. Many FRBs provide fiscal agent services on behalf of Treasury. Such services primarily consist of issuing, servicing, and redeeming Treasury securities held by the public and handling the related transfers of funds. FRBs use a number of key financial systems to process debt-related transactions. Detailed data initially processed at FRBs are summarized and then forwarded electronically to the appropriate Treasury data center for matching, verification, and posting to Fiscal Service's general ledger.

Information systems general controls are the structure, policies, and procedures that apply to an entity's overall computer operations. Information systems general controls establish the environment in which the application systems and controls operate. They include five general control areas—security management, access controls, configuration management, segregation of duties, and contingency planning.⁹ An effective information systems general control environment (1) provides a framework and continuing cycle of activity for managing risk, developing and implementing effective security policies, assigning responsibilities, and monitoring the adequacy of the entity's computer-related controls (security management); (2) limits access or detects inappropriate access to computer resources, such as data, programs, equipment, and facilities, thereby protecting them from unauthorized modification, loss, or disclosure (access controls); (3) prevents unauthorized changes to information system resources, such as software programs and hardware configurations, and provides reasonable assurance that systems are configured and operating securely and as intended and only authorized and fully tested changes are made (configuration management); (4) includes policies, procedures, and an organizational structure to manage who can control key aspects of computer-related operations (segregation of duties); and (5) protects critical and sensitive data, and provides for critical operations to continue without disruption or be promptly resumed when unexpected events occur (contingency planning).

Objectives, Scope, and Methodology

Our objectives were to evaluate information systems controls over key financial systems maintained and operated by, and on behalf of, Treasury that are relevant to the Schedule of Federal Debt, and to determine the status of Fiscal Service's corrective actions to address information systems control-related deficiencies and associated recommendations in our prior years' reports for which actions were not complete as of September 30, 2013. Our evaluation of information systems controls was conducted using the *Federal Information System Controls Audit Manual*.¹⁰ This work was performed in connection with our audit of the Schedules of Federal Debt for the fiscal years ended September 30, 2014, and 2013, for the purpose of supporting our opinion on Fiscal Service's internal control over financial reporting relevant to the Schedule of Federal Debt.

To evaluate information systems controls, we identified and reviewed Fiscal Service's information systems control policies and procedures, observed controls in operation, conducted tests of controls, and held discussions with officials at the appropriate Treasury data center to determine whether controls were adequately designed, implemented and operating effectively.

The scope of our information systems general controls work for fiscal year 2014 included (1) following up on open recommendations from our prior years' reports and (2) using a risk-based approach to test the five general control areas related to the systems in which the applications operate and other critical control points in the systems or networks that could have an impact on the effectiveness of the information systems controls at Fiscal Service as they relate to financial reporting in the current year relevant to the Schedule of Federal Debt. In addition, we assessed software and network security over key Fiscal Service financial systems that are relevant to the Schedule of Federal Debt.

⁹GAO, *Government Auditing Standards: 2011 Revision*, [GAO-12-331G](#) (Washington, D.C.: December 2011).

¹⁰GAO, *Federal Information System Controls Audit Manual (FISCAM)*, [GAO-09-232G](#) (Washington, D.C.: February 2009).

We determined whether relevant application controls were appropriately designed and implemented, and then performed tests to determine whether the application controls were operating effectively. We reviewed four key Fiscal Service applications relevant to the Schedule of Federal Debt to determine whether the application controls were designed and operating effectively to provide reasonable assurance that

- transactions that occurred were input into the system, accepted for processing, processed once and only once by the system, and properly included in output;
- transactions were properly recorded in the proper period, key data elements input for transactions were accurate, data elements were processed accurately by applications that produce reliable results, and output was accurate;
- recorded transactions actually occurred, were related to the organization, and were properly approved in accordance with management's authorization, and output contained only valid data;
- application data and reports and other output were protected against unauthorized access; and
- application data and reports and other relevant business information were readily available to users when needed.

GAO used an independent public accounting (IPA) firm, under contract, to assist in information systems testing, including the follow-up on the status of Fiscal Service's corrective actions during fiscal year 2014 to address open recommendations from our prior years' reports. We agreed on the scope of the IPA's work, monitored and reviewed all aspects of its work, and determined that the work was sufficient to satisfy our audit objectives.

During the course of our work, we communicated our findings to Fiscal Service management. We plan to follow up to determine the status of corrective actions taken on matters open as of September 30, 2014, during our audit of the fiscal year 2015 Schedule of Federal Debt. We performed our work in accordance with U.S. generally accepted government auditing standards. We believe that our audit provided a reasonable basis for our conclusions in this report.

Assessment of Fiscal Service's Information Systems General Controls

During our fiscal year 2014 audit, we identified nine new information systems general control deficiencies. Three of these deficiencies related to security management, four related to access controls, and two related to configuration management. These new deficiencies in Fiscal Service's information systems controls increase the risk of (1) inadequate security controls in financial management systems; (2) unauthorized access to, modification of, or disclosure of sensitive data and programs; (3) unauthorized changes to critical system resources; and (4) disruption of critical operations. The risks associated with these control deficiencies primarily emanated from individuals within Fiscal Service who had access to Fiscal Service internal systems.

Security management is the foundation of a security control structure and a reflection of senior management's commitment to addressing security risks. Effectively designed and implemented security management programs provide a framework and a continuing cycle of activity for managing risk, developing and implementing effective security policies, assigning responsibilities, and monitoring the adequacy of the entity's computer-related controls. Without

a well-designed security management program, security controls may be inadequate; responsibilities may be unclear, misunderstood, or improperly implemented; and controls may be inconsistently applied. Such conditions may lead to insufficient protection of sensitive or critical resources and disproportionately high expenditures for controls over low-risk resources.

Access controls limit access or detect inappropriate access to computer resources such as data, programs, equipment, and facilities, thereby protecting them from unauthorized modification, loss, or disclosure. Such controls include logical access controls and physical access controls. The new access control deficiencies we identified during fiscal year 2014 related to logical access controls. Effectively designed and implemented logical access controls require users to authenticate themselves through the use of passwords or other identifiers, and limit the files and other resources that authenticated users can access and the actions that they can execute based on a valid need that is determined by assigned official duties.

Configuration management involves the identification and management of security features for all hardware, software, and firmware components of an information system at a given point and systematically controls changes to that configuration during the system's life cycle. Effectively designed and implemented configuration management controls prevent unauthorized changes to information system resources and provide reasonable assurance that systems are configured and operating securely and as intended and only authorized and fully tested changes are made to critical components at each system sublevel (i.e., network, operating systems, and infrastructure applications). In addition, effectively designed and implemented configuration management controls provide reasonable assurance that applications and changes to the applications go through a formal, documented systems development process that identifies all changes to the baseline configuration. To reasonably assure that changes to applications are necessary, work as intended, and do not result in the loss of data or program integrity, such changes should be documented, authorized, tested, and independently reviewed.

In a separately issued Limited Official Use Only report, we communicated to the Commissioner of the Bureau of the Fiscal Service detailed information regarding the nine new information systems general control deficiencies and made ten recommendations to address these control deficiencies.

In addition, our follow-up on the status of actions taken by Fiscal Service to address previously identified, but unresolved, information systems general control deficiencies as of September 30, 2013, found that corrective actions were complete for 18 of the 22 open recommendations and corrective actions were in progress for the remaining four open recommendations.

The potential effect of these new and continuing deficiencies on the Schedule of Federal Debt financial reporting for fiscal year 2014 was mitigated primarily by Fiscal Service's compensating management and reconciliation controls designed to detect potential misstatements on the Schedule of Federal Debt. Nevertheless, these new and continuing information systems control deficiencies increase the risk of inadequate security controls in financial management systems; unauthorized access to, modification of, or disclosure of sensitive data and programs; unauthorized changes to critical system resources; and disruption of critical operations, and therefore warrant the attention and action of management.

Agency Comments

The Commissioner of the Bureau of the Fiscal Service provided comments on the detailed findings and recommendations in the separately issued Limited Official Use Only report. In those comments, the Commissioner stated that Fiscal Service is committed to information security and concentrated resources to mitigate the risks identified in our report. The Commissioner further stated that, subsequent to September 30, 2014, three of the nine new information systems control-related deficiencies, as well as one of the three deficiencies that remained from our prior years' audits, have been successfully remediated. Additionally, the Commissioner cited planned corrective actions to address the remaining open information systems control-related deficiencies. We plan to follow up to determine the status of corrective actions taken to address the deficiencies open as of September 30, 2014, during our audit of the fiscal year 2015 Schedule of Federal Debt.

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In the separately issued Limited Official Use Only report, we noted that the head of a federal agency is required by 31 U.S.C. § 720 to submit a written statement on actions taken on our recommendations to the Senate Committee on Homeland Security and Governmental Affairs and to the House Committee on Oversight and Government Reform not later than 60 days after the date of this report. A written statement must also be sent to the Senate and House Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of this report.

We are sending copies of this report to interested congressional committees, the Secretary of the Treasury, the Inspector General of the Department of the Treasury, and the Director of the Office of Management and Budget. In addition, this report is available at no charge on the GAO website at <http://www.gao.gov/>.

If you or your staff have any questions regarding this report, please contact me at (202) 512-3406 or engelg@gao.gov. Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff members who made major contributions to this report include Nicole M. Burkart, Dianne D. Guensberg, David B. Hayes, and Jeffrey L. Knott (assistant directors); Mickie E. Gray; Linda M. Kochersberger; J. Andrew Long; and Ivy Wu.

Sincerely yours,



Gary T. Engel
Managing Director
Financial Management and Assurance

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