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Washington, DC 20548

April 17, 2018

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 System 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, 2017, and 2016.² As part of these audits, we performed a review of information system controls over key Fiscal Service financial systems that are 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, 2017, and 2016, although certain internal controls could be improved, Fiscal Service maintained, in all material respects, effective internal control over financial reporting relevant to the Schedule of Federal Debt as of September 30, 2017, 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. However, we identified a significant deficiency in Fiscal Service's internal control over financial reporting, which although not a material weakness, is important enough to merit the attention of those charged with governance of Fiscal Service.³ Specifically, during our fiscal year 2017 audit, we identified new deficiencies in information system controls that along with unresolved control deficiencies from prior audits collectively represent a significant deficiency in Fiscal Service's internal control over financial reporting. For most of these deficiencies, Fiscal Service either had not developed and implemented adequate policies and procedures or was not consistently following its policies and procedures. Many of the information system general control deficiencies we identified had not

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 that it manages are 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 2017 and 2016 Schedules of Federal Debt*, GAO-18-134 (Washington, D.C.: Nov. 9, 2017).

³A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, 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 over financial reporting 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.

been detected by Fiscal Service.⁴ Additionally, certain previously reported general control deficiencies that Fiscal Service informed us it had addressed continued to be present.

Although the significant deficiency in internal control did not affect our opinion on Fiscal Service's fiscal year 2017 Schedule of Federal Debt, misstatements may occur in other financial information that Fiscal Service reported and not be prevented, or detected and corrected, on a timely basis because of this significant deficiency. Continued and consistent management commitment and attention will be essential to addressing existing deficiencies and improving Fiscal Service's information system general controls. Ongoing reorganization within Fiscal Service—particularly within Information and Security Services (ISS), which is the organizational unit responsible for many of the information system general controls—continued to occur in fiscal year 2017, and a number of key ISS positions were vacant during portions of the fiscal year. Ongoing change can introduce risks, such as the risk that controls will not be performed as designed because of unclear assignment of responsibilities for certain processes, which may have contributed to some of the new control deficiencies we identified. Also, continued change could hamper Fiscal Service's ability to effectively and timely resolve the identified control deficiencies and may result in additional control deficiencies. Consequently, addressing this significant deficiency will require increased focus on assessing risks associated with continued change, designing and implementing effective controls to address such risks, and monitoring the effectiveness of controls.

This report presents the deficiencies we identified during our fiscal year 2017 testing of information system 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 system control deficiencies and associated recommendations contained in our prior years' reports that were open as of September 30, 2016. This report is a public version of a LIMITED OFFICIAL USE ONLY report that we issued concurrently.⁵ Fiscal Service deemed much of the information in our concurrently issued report to be sensitive information, which must be protected from public disclosure. Therefore, this report omits sensitive information about the information system control deficiencies we identified. Although the information provided in this report is more limited, the report addresses the same objectives as the LIMITED OFFICIAL USE ONLY report and uses the same methodology.

We also assessed information system controls over key financial systems maintained and operated by the Federal Reserve Banks (FRB) on behalf of the Department of the Treasury (Treasury) that are relevant to the Schedule of Federal Debt. While we identified deficiencies in such controls, these deficiencies did not contribute individually or collectively to the significant deficiency we identified. We issued a separate report to the Board of Governors of the Federal Reserve System on the results of that assessment.⁶

⁴General controls are the policies and procedures that apply to all or a large segment of an entity's information systems and help ensure their proper operation. General controls are applied at the entity-wide, system, and business process application levels. The effectiveness of general controls is a significant factor in determining the effectiveness of business process application controls, which are applied at the business process application level.

⁵GAO, *Management Report: Improvements Needed in the Bureau of the Fiscal Service's Information System Controls*, GAO-18-331RSU (Washington, D.C.: Apr. 17, 2018).

⁶GAO, *Management Report: Areas for Improvement in the Federal Reserve Banks' Information System Controls*, [GAO-18-334R](#) (Washington, D.C.: Apr. 5, 2018).

Results in Brief

During our fiscal year 2017 audit, we identified eight new information system general control deficiencies related to security management, access controls, and configuration management. Specifically, we identified one security management control deficiency, four access control deficiencies, and three configuration management control deficiencies. In the 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 system control deficiencies and associated recommendations contained in our prior years' reports that were open as of September 30, 2016, we determined that corrective actions were still in progress for all 15 open recommendations related to security management, access controls, configuration management, and segregation of duties.

These new and continuing information system control deficiencies, which collectively represent a significant deficiency, increase the risk of unauthorized access to, modification of, or disclosure of sensitive data and programs and disruption of critical operations. The potential effect of these new and continuing deficiencies on the Schedule of Federal Debt financial reporting for fiscal year 2017 was mitigated primarily by Fiscal Service's compensating management and reconciliation controls designed to detect potential misstatements of the Schedule of Federal Debt.

In commenting on a draft of the separately issued LIMITED OFFICIAL USE ONLY report, Fiscal Service stated that it continues to work to address the deficiencies related to the 15 prior-year recommendations that remained open as of September 30, 2017, and has established plans to address the deficiencies related to the 10 new recommendations made in this year's report.

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 statutory authority to invest temporary cash reserves not needed for current benefits and expenses.

As of September 30, 2017, and 2016, federal debt managed by Treasury's Fiscal Service totaled \$20,223 billion and \$19,560 billion, respectively, primarily for borrowings to fund the federal government's operations. These balances consisted of approximately (1) \$14,673 billion as of September 30, 2017, and \$14,173 billion as of September 30, 2016, of debt held by the public and (2) \$5,560 billion as of September 30, 2017, and \$5,387 billion as of September 30, 2016, of intragovernmental debt holdings. Total interest expense on federal debt managed by Fiscal Service for fiscal years 2017 and 2016 was about \$457 billion and \$430 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 that it issues, and to manage the federal debt. Many of the 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. FRBs process, summarize, and electronically forward data to Treasury's data center for matching, verification, and posting to Fiscal Service's general ledger.

Information system general controls are the structure, policies, and procedures that apply to an entity's overall computer operations and 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.⁷ An effective information system general control environment (1) provides a framework and continuous cycle of activity for managing risk, developing and implementing effective security policies, assigning responsibilities, and monitoring the adequacy of the entity's information system 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 or untested changes to critical information system resources at each system sublevel (i.e., network, operating systems, and infrastructure applications) and provides reasonable assurance that systems are securely configured and operated as intended (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 (1) evaluate information system controls over key financial systems maintained and operated by Fiscal Service that are relevant to the Schedule of Federal Debt and (2) determine the status of Fiscal Service's corrective actions to address information system control deficiencies and associated recommendations contained in our prior years' reports for which actions were not complete as of September 30, 2016. We evaluated information system controls using the *Federal Information System Controls Audit Manual*.⁸ We performed this work in connection with our audits of the Schedules of Federal Debt for the fiscal years ended September 30, 2017, and 2016, 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 system controls, we identified and reviewed Fiscal Service's information system control policies and procedures; observed controls in operation; conducted tests of controls; and held discussions with officials at Treasury's data center to determine whether controls were adequately designed, implemented, and operating effectively.

The scope of our information system general controls work for fiscal year 2017 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 system controls at Fiscal Service as they relate to financial reporting relevant to the Schedule of Federal Debt.

⁷GAO, *Government Auditing Standards: 2011 Revision*, [GAO-12-331G](#) (Washington, D.C.: December 2011).

⁸GAO, *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 produced 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.

We used an independent public accounting (IPA) firm, under contract, to assist with information system testing, including the follow-up on the status of Fiscal Service's corrective actions during fiscal year 2017 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 recommendations open as of September 30, 2017, during our audit of the fiscal year 2018 Schedule of Federal Debt.

We performed our audit in accordance with U.S. generally accepted government auditing standards. We believe that our audit provides a reasonable basis for our findings and recommendations in this report.

Assessment of Fiscal Service's Information System General Controls

During our fiscal year 2017 audit, we identified eight new information system general control deficiencies. One of these deficiencies related to security management, four related to access controls, and three related to configuration management.

Security management is the foundation of a security-control structure and is a reflection of senior management's commitment to addressing security risks. Effectively designed and implemented security management programs provide a framework and continuous cycle of activity for managing risk, developing and implementing effective security policies, assigning responsibilities, and monitoring the adequacy of the entity's information system 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 2017 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 or untested changes to critical information system resources at each system sublevel (i.e., network, operating systems, and infrastructure applications) and provide reasonable assurance that systems are securely configured and operated as intended. 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 authorized, documented, tested, and independently reviewed.

In the separately issued LIMITED OFFICIAL USE ONLY report, we communicated to the Commissioner of the Bureau of the Fiscal Service detailed information regarding the eight new information system general control deficiencies and made 10 recommendations to address these control deficiencies.

In addition, during our fiscal year 2017 follow-up on the status of Fiscal Service's actions to address previously identified, but unresolved, information system general control deficiencies as of September 30, 2016, we found that corrective actions were in progress for all 15 open recommendations related to security management, access controls, configuration management, and segregation of duties.

The potential effect of these new and continuing deficiencies on the Schedule of Federal Debt financial reporting for fiscal year 2017 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 general control deficiencies, which collectively represent a significant deficiency, increase the risk of unauthorized access to, modification of, or disclosure of sensitive data and programs and disruption of critical operations.

Agency Comments

Fiscal Service provided comments on the detailed findings and recommendations in the separately issued LIMITED OFFICIAL USE ONLY report. In those comments, Fiscal Service stated that it is committed to having effective internal controls for its information technology systems. Fiscal Service further stated that it would continue to look for efficient and effective ways to improve and ensure the consistent application of agency-wide security controls over all systems. Additionally, Fiscal Service stated that it continues to work to address the deficiencies related to the 15 prior-year recommendations that remained open as of September 30, 2017, and has established plans to address the deficiencies related to the 10 new recommendations made in this year's report. We plan to follow up to determine the status of corrective actions

taken to address these deficiencies and associated recommendations during our audit of the fiscal year 2018 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 or planned on our recommendations to the Senate Committee on Homeland Security and Governmental Affairs, the House Committee on Oversight and Government Reform, the congressional committees with jurisdiction over the agency programs and activities that are the subject of our recommendations, and GAO not later than 60 days after the date of that 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 that 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 simpsondb@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 and Jonathan W. Ticehurst (Assistant Directors), Shaun T. Byrnes, Colleen A. Heywood, Thomas J. Johnson, Nizar N. Lalani, Werner F. Miranda-Hernandez, and Rebecca L. Perkins.

Sincerely yours,



Dawn B. Simpson
Director
Financial Management and Assurance

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