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March 30, 2021

Mr. Matthew J. Miller
Acting 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 Related to the Schedule of Federal Debt

Dear Mr. Miller:

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 Department of the Treasury's (Treasury) Bureau of the Fiscal Service (Fiscal Service) for the fiscal years ended September 30, 2020, and 2019.² As part of these audits, we assessed key information system controls over 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, 2020, and 2019, although 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, 2020, 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 to the Schedule of Federal Debt would be prevented, or detected and corrected, on a timely basis. However, during our fiscal year 2020 audit, we determined that information system control deficiencies—primarily unresolved deficiencies identified in prior audits—continued to collectively represent a significant deficiency in Fiscal Service's internal control over financial reporting.³ Although the deficiencies are not a material weakness, they warrant the attention of

¹31 U.S.C. § 331(e)(2). In connection with fulfilling our requirement to audit the consolidated financial statements of the U.S. government, we audited and reported on the Schedules of Federal Debt because of the significance of the federal debt to the federal government's consolidated financial statements. 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 are also significant to the Department of the Treasury's financial statements (see 31 U.S.C. § 3515(b)).

²GAO, *Financial Audit: Bureau of the Fiscal Service's FY 2020 and FY 2019 Schedules of Federal Debt*, GAO-21-124 (Washington, D.C.: Nov. 9, 2020).

³A 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.

those charged with governance of Fiscal Service.⁴ While the significant deficiency in internal control did not affect our opinion on Fiscal Service's fiscal year 2020 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.

During fiscal year 2020, Fiscal Service made progress toward reasonably assuring that (1) corrective action plans fully address information system control deficiencies and (2) new or enhanced controls established as part of the corrective actions fully resolve the control deficiencies. However, we continued to identify instances in which Fiscal Service's corrective actions were not sufficient to address the control deficiencies and its existing independent verification and validation process did not identify the shortcomings. Consequently, many of the deficiencies that contributed to the significant deficiency we reported as of September 30, 2019—nearly all of which, according to Fiscal Service, had been remediated—remained unresolved as of September 30, 2020.

While this significant deficiency in internal control over financial reporting continued to exist as of September 30, 2020, Fiscal Service made progress in addressing certain information system control deficiencies. Specifically, Fiscal Service successfully completed corrective actions to strengthen access and monitoring controls around data sets that should only be changed through the use of its mainframe change-management tool. Fiscal Service also continued to improve its processes for monitoring compliance with its baseline security requirements. However, we continued to identify instances in which known information system vulnerabilities and deviations from baseline security requirements were not remediated on a timely basis or adequately tracked for remediation. Additionally, while Fiscal Service has made considerable progress, we continue to identify instances in which mainframe security controls are not employed in accordance with the concept of least privilege. We also found that the documentation describing the security architecture for the mainframe needs improvement. It will be important for Fiscal Service management to build on the progress made and to sustain focus on improving the agency's information system general controls.⁵ Specifically, it will be important for Fiscal Service management to identify potential opportunities for addressing control deficiencies through comprehensive approaches that consider the interrelationships among them.

This report presents the deficiencies we identified during our fiscal year 2020 testing of key information system controls over Fiscal Service financial systems that are relevant to the Schedule of Federal Debt. The report also includes the results of our follow-up on the status of Fiscal Service's corrective actions to address control deficiencies contained in our prior years' reports that Fiscal Service had not remediated as of September 30, 2019.

We also assessed key information system controls over financial systems that the Federal Reserve Banks (FRB) maintained and operated that are relevant to the Schedule of Federal

⁴A 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.

⁵General 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 application controls, which are applied at the business process application level.

Debt. While we identified one continuing deficiency in such controls, this deficiency did not contribute individually or collectively to the significant deficiency we identified.

This report is a public version of a LIMITED OFFICIAL USE ONLY report that we issued concurrently.⁶ 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.

Results in Brief

During our fiscal year 2020 audit, we identified four new information system general control deficiencies related to security management, configuration management, and segregation of duties in financial systems Fiscal Service maintained and operated that are relevant to the Schedule of Federal Debt. In the LIMITED OFFICIAL USE ONLY report, we made eight 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, 2019, we determined that corrective actions were complete for five of the 21 open recommendations, and corrective actions were still in progress for 16 open recommendations related to security management, access controls, and configuration management. In the LIMITED OFFICIAL USE ONLY report, we communicated detailed information regarding actions that Fiscal Service has taken to address control deficiencies contained in our prior years' reports that were not remediated as of September 30, 2019.

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 deficiencies on Schedule of Federal Debt financial reporting for fiscal year 2020 was mitigated primarily by Fiscal Service's compensating management and reconciliation controls designed to detect potential misstatements on the Schedule of Federal Debt.

In commenting on a draft of the separately issued LIMITED OFFICIAL USE ONLY report, Fiscal Service stated that it is establishing a comprehensive audit remediation plan to resolve the four new deficiencies and the prior year deficiencies related to the 16 recommendations that remained open as of September 30, 2020.

Background

Congress has authorized Treasury 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

⁶GAO, *Management Report: Improvements Needed in the Bureau of the Fiscal Service's Information System Controls Related to the Schedule of Federal Debt*, GAO-21-304RSU (Washington, D.C.: Mar. 30, 2021).

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, 2020, and 2019, federal debt managed by Treasury's Fiscal Service totaled \$26,938 billion and \$22,711 billion, respectively, primarily for borrowings to fund the federal government's operations. These balances consisted of approximately (1) \$21,019 billion as of September 30, 2020, and \$16,809 billion as of September 30, 2019, of debt held by the public and (2) \$5,919 billion as of September 30, 2020, and \$5,902 billion as of September 30, 2019, of intragovernmental debt holdings. Total interest expense on federal debt that Fiscal Service managed for fiscal years 2020 and 2019 was about \$527 billion and \$574 billion, respectively.

Treasury relies on a number of interconnected financial systems and electronic data to process and track the money it borrows, to account for the securities it issues, and to manage the federal debt. Many of the FRBs, as the government's fiscal agent, provide services on behalf of Treasury, which 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 financial systems to process, summarize, and electronically forward debt-related transactions to Treasury's data center for matching, verification, and posting to Fiscal Service's general ledger.

Federal law requires federal agencies to provide information security protections for (1) information collected or maintained by or on behalf of the agency and (2) information systems⁷ used or operated by the agency or by a contractor or other organization on the agency's behalf.⁸ Federal law also requires agencies to comply with information security standards developed by the National Institute of Standards and Technology.⁹ Further, federal law requires each agency to develop, document, and implement an agency-wide information security program to provide information security for the information and information systems that support the operations and assets of the agency, including those provided or managed by another agency, contractor, or other source.¹⁰

Information system general controls are the policies and procedures that apply to all or a large segment of an entity's information systems. General controls help ensure the proper operation of information systems by creating the environment for effective operation of application controls. General controls include security management, logical and physical access, configuration management, segregation of duties, and contingency planning.¹¹ An effective information system general control environment (1) provides a framework and continuing cycle of activity for managing risk, developing security policies, assigning responsibilities, and

⁷Under federal law, an information system is defined broadly as a "discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information." 44 U.S.C. § 3502(8).

⁸Federal agency information security responsibilities are provided by the Federal Information Security Modernization Act of 2014 (FISMA 2014), Pub. L. No. 113-283, 128 Stat. 3073 (Dec. 18, 2014), *codified at* 44 U.S.C. §§ 3551–3558, which largely superseded the similar Federal Information Security Management Act of 2002, Title III of the E-Government Act of 2002, Pub. L. No. 107-347, 116 Stat. 2899, 2946 (Dec. 17, 2002). In particular, the federal agency responsibilities noted in this report are codified at 44 U.S.C. § 3554.

⁹FISMA 2014, *codified at* 44 U.S.C. § 3554(a).

¹⁰FISMA 2014, *codified at* 44 U.S.C. § 3554(b).

¹¹GAO, *Government Auditing Standards: 2018 Revision*, [GAO-18-568G](#) (Washington, D.C.: July 2018).

monitoring the adequacy of the entity's computer-related controls (security management); (2) limits or detects access to computer resources, such as data, programs, equipment, and facilities, thereby protecting against unauthorized modification, loss, or disclosure (logical and physical access); (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 (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 key information system controls over financial systems that Fiscal Service maintained and operated 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 contained in our prior years' reports that were not remediated as of September 30, 2019. We evaluated information system controls using the *Federal Information System Controls Audit Manual*.¹² We performed this work in connection with our audit of the Schedules of Federal Debt for the fiscal years ended September 30, 2020, and 2019, to support 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 designed, implemented, and operating effectively.

The scope of our information system general controls work for fiscal year 2020 included (1) following up on the status of Fiscal Service's corrective actions to address open information system control deficiencies 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 controls at Fiscal Service as they relate to financial reporting relevant to the Schedule of Federal Debt.

We determined whether relevant application controls were designed and implemented effectively and then performed tests to determine whether the 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, implemented, 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, with the correct amount and on a timely basis (in the proper period), key data elements input for transactions were accurate, data elements were

¹²GAO, *Federal Information System Controls Audit Manual* (FISCAM), [GAO-09-232G](#) (Washington, D.C.: February 2009).

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 firm (IPA), under contract, to assist with information system controls testing, including follow-up on the status of Fiscal Service's corrective actions to address control deficiencies contained in our prior years' reports that were not remediated as of September 30, 2019. We agreed with the IPA on the scope of work, monitored and reviewed all aspects of the 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 to address control deficiencies not remediated as of September 30, 2020, during our audit of the fiscal year 2021 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 our separately issued LIMITED OFFICIAL USE ONLY report.

Assessment of Fiscal Service's Information System General Controls Related to the Schedule of Federal Debt

During our fiscal year 2020 audit, we identified four new information system general control deficiencies. One deficiency related to security management, two related to configuration management, and one related to segregation of duties.

Security management is the foundation of a security-control structure and reflects senior management's commitment to addressing security risks. Security management programs should 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.

Configuration management involves identifying and managing security features for all hardware, software, and firmware components of an information system at a given point, and systematically controlling changes to that configuration during the system's life cycle. Configuration management controls should 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 operating as intended. In addition, configuration management controls should

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 addition, work responsibilities should be segregated so that one individual does not control all critical stages of a process. Effective segregation of duties is achieved by splitting responsibilities between two or more individuals or organizational units in a manner that reduces the likelihood that errors and wrongful acts will go undetected because the activities of one individual or organizational unit will serve as a check on the activities of the other.

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

During our fiscal year 2020 follow-up on the status of Fiscal Service's corrective actions to address control deficiencies contained in our prior years' reports that were not remediated as of September 30, 2019, we determined that Fiscal Service completed corrective actions for five of the 21 open recommendations. We also determined that corrective actions were in progress for the remaining 16 open recommendations. Although Fiscal Service management made progress in addressing the deficiencies, additional actions are needed to resolve four deficiencies related to security management, three deficiencies related to access controls, and nine deficiencies related to configuration management. In the LIMITED OFFICIAL USE ONLY report, we communicated detailed information regarding actions that Fiscal Service has taken to address control deficiencies contained in our prior years' reports that were not remediated as of September 30, 2019.

Fiscal Service mitigated the potential effect of these new and continuing deficiencies on Schedule of Federal Debt financial reporting for fiscal year 2020 by its compensating management and reconciliation controls designed to detect potential misstatements on the Schedule of Federal Debt. Until Fiscal Service fully addresses these new and continuing control deficiencies, which collectively represent a significant deficiency, there will be an increased 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 understands the need for consistent management commitment to address the existing significant deficiency. Additionally, Fiscal Service stated that it is establishing a comprehensive audit remediation plan to resolve the four new deficiencies and the prior year deficiencies related to the 16 recommendations that remained open as of September 30, 2020. We plan to follow up to determine the status of actions taken to address these deficiencies during our audit of the fiscal year 2021 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 Reform, the congressional committees with jurisdiction over the agency programs and activities that are the subject of our recommendations, and GAO not later than 180 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 180 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 <https://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 (Assistant Director) and Christopher Pfau.

Sincerely yours,

A handwritten signature in black ink that reads "Dawn Simpson". The signature is written in a cursive, flowing style.

Dawn B. Simpson
Director
Financial Management and Assurance

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