

Federal Housing Finance Agency
Office of Inspector General



DER Effectively Followed Its Risk-Based Approach in Its Oversight of Fannie Mae's IT Investment Management

Audit Report • AUD-2024-002 • November 7, 2023



AUD-2024-002

November 7,
2023

Executive Summary

The Federal Housing Finance Agency (FHFA or Agency) Division of Enterprise Regulation (DER) conducts annual safety and soundness examinations of the Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac) (together, the Enterprises). In the course of its work, DER prepares annual risk assessments to document the significant developments affecting the Enterprises' business operations and risk exposures. The risk assessment identifies potential areas of supervisory focus for annual examination activities. The risk assessment subsequently guides the development of DER's examination plan, which documents all planned examination activities.

In January 2020, Fannie Mae began a digital transformation to modernize the Enterprises' business and processes through information technology (IT) investments. The Government Accountability Office (GAO) defines an IT investment as the expenditure of resources on selected IT or IT-related initiatives with the expectation that the benefits from the expenditure will exceed the value of the resources expended. In calendar years 2021 and 2022, Fannie Mae spent a combined \$608 million for eight major IT investments.

We conducted this audit in response to allegations of potential mismanagement of IT funds by a member of Fannie Mae management. Our objective was to assess whether DER provided effective oversight of Fannie Mae's IT investment management from January 1, 2021, through December 31, 2022 (scope period). As part of our audit, we reviewed the extent and effectiveness of DER's oversight of Fannie Mae's IT investments. We also expanded the scope of the audit to include the Division of Conservatorship Oversight and Readiness (DCOR) to determine DCOR's oversight of Fannie Mae's IT investments. In addition, we included Fannie Mae in the audit scope to assess its management of three major IT investments for adherence to FHFA's expectations in Advisory Bulletin 2015-06, *Information Technology Investment Management* (September 21, 2015).

We found that DER effectively followed its risk-based approach in its oversight of Fannie Mae's IT investment management during the scope period. DER's annual risk assessments did not identify Fannie Mae IT investment management as a risk area. As such, DER did not conduct any examination activities focusing on Fannie Mae IT investment management during the scope period. We also found that DCOR was not required to provide oversight of Fannie Mae's IT investment management.

Lastly, we found that Fannie Mae adhered to FHFA's Advisory Bulletin 2015-06, *Information Technology Investment Management* (September 21, 2015) in



AUD-2024-002

November 7,
2023

its management of three select major IT investments during the scope period. In addition, we did not find evidence suggesting mismanagement of IT funds in our review of Fannie Mae's three major IT investments.

We made no recommendations in this report. FHFA management chose not to provide a written response, but we considered management's technical comments to a draft in finalizing this report.

This report was prepared by Jackie Dang, IT Audit Director; Marcie McIsaac, IT Audit Manager; and David N. Peppers, Auditor-in-Charge; with assistance from Abdil Salah, Assistant Inspector General for Audits. We appreciate the cooperation of FHFA staff, as well as the assistance of all those who contributed to the preparation of this report.

This report has been distributed to Congress, the Office of Management and Budget, and others and will be posted on our website, www.fhfaoig.gov, and www.oversight.gov.

James Hodge, Deputy Inspector General for Audits /s/

TABLE OF CONTENTS

EXECUTIVE SUMMARY2

ABBREVIATIONS5

BACKGROUND6

 Fannie Mae Invested in IT to Modernize Systems and Operations.....6

 FHFA Issued IT Investment Management Guidance to the Enterprises7

 FHFA Uses a Risk-Based Approach for Its Supervisory Activities.....7

 Concerns With Potential Mismanagement of Fannie Mae’s IT Funds.....8

FACTS AND ANALYSIS.....8

 DER Effectively Followed Its Risk-Based Approach in Its Oversight of Fannie
Mae’s IT Investment Management8

CONCLUSIONS.....10

FHFA COMMENTS AND OIG RESPONSE10

OBJECTIVE, SCOPE, AND METHODOLOGY11

ADDITIONAL INFORMATION AND COPIES14

ABBREVIATIONS

AB 2015-06	Advisory Bulletin 2015-06, <i>Information Technology Investment Management</i>
DCOR	Division of Conservatorship Oversight and Readiness
DER	Division of Enterprise Regulation
Enterprises	Fannie Mae and Freddie Mac
Fannie Mae	Federal National Mortgage Association
FHFA or Agency	Federal Housing Finance Agency
Freddie Mac	Federal Home Loan Mortgage Corporation
GAO	Government Accountability Office
IT	Information Technology
OIG	Federal Housing Finance Agency Office of Inspector General
OPB	Operating Procedures Bulletin

BACKGROUND.....

FHFA is responsible for supervising the Enterprises. FHFA’s DCOR assists the FHFA Director in exercising FHFA’s authority as conservator. DER conducts annual safety and soundness examinations of the Enterprises through planning and executing risk-based examinations of the Enterprises. DCOR receives Fannie Mae’s annual operating budget submissions, coordinates analysis with responsible FHFA divisions, facilitates the FHFA conservatorship decision-making process, and engages in certain monitoring and surveillance on behalf of the Agency. According to DCOR, Fannie Mae’s IT investments were reviewed through the annual operating budgeting submission process as directed in FHFA’s Fannie Mae 2017 Letter of Instruction (December 18, 2017), Part B.1 – Other Matters Requiring FHFA Conservator Decision and Board Approval.¹ As detailed in FHFA’s Fannie Mae 2017 Letter of Instruction, Fannie Mae is not required to submit individual components of its annual operating budget, including IT, to FHFA.

Fannie Mae Invested in IT to Modernize Systems and Operations

In January 2020, Fannie Mae began a digital transformation to modernize its core business and convert legacy systems and processes. Fannie Mae invested in eight major IT investments,^{2,3} with total spending of \$608 million in calendar years 2021 and 2022. As reported in Fannie Mae’s 2022 *Annual Report on Form 10-K*,⁴ Fannie Mae has been transitioning its core IT systems to third-party cloud-based platforms. Fannie Mae also made IT investments to modernize its enterprise architecture⁵ and automate existing processes to achieve efficiency.

¹ FHFA’s Fannie Mae 2017 Letter of Instruction specifies actions for which FHFA requires the Enterprises to obtain FHFA’s approval or provide FHFA notice.

² According to GAO, an IT investment is the expenditure of resources on selected IT or IT-related initiatives with the expectation that the benefits from the expenditure will exceed the value of the resources expended. IT investments can significantly influence organizational performance and if not managed effectively, can result in wasteful spending and lost opportunities for improving delivery of services. As such, IT investment management provides a systematic method for minimizing risks while maximizing the return on investments and involves a process for selecting, controlling, and evaluating investments.

³ According to Fannie Mae, a major investment is mission critical and costs more than \$20 million.

⁴ Fannie Mae, [2022 Annual Report \(Form 10-K\)](#), at 133-134.

⁵ Enterprise architecture is an enterprise’s entire set of information systems: how they are configured, how they are integrated, how they interface to the external environment at the Enterprise’s boundary, how they are operated to support the enterprise mission, and how they contribute to the Enterprise’s overall security posture.

FHFA Issued IT Investment Management Guidance to the Enterprises

In Advisory Bulletin 2015-06, *Information Technology Investment Management* (September 21, 2015) (AB 2015-06), FHFA set forth its expectations that each Enterprise's IT investment management includes sound governance and effective monitoring and reporting that reflect the relevant risk assessments of the Enterprise. Effective IT investment management contributes to safe and sound operations by enabling an Enterprise to confirm that IT investments are aligned with strategic priorities, support business operations, and deliver expected returns on investment. According to AB 2015-06, each Enterprise should:

- Maintain sound governance over IT investments using a risk-based approach at both the portfolio level and at the project⁶ level to confirm that the Enterprise's IT investments align with Enterprise strategic priorities and line of business objectives.
- Perform risk assessments for IT funding proposals to identify potential risks at the project and portfolio level.
- Conduct cost-benefit analyses to inform the prioritization of IT investments and funding decisions.
- Include long-term IT investments over multiple budget cycles, not only for new projects, but also for ongoing maintenance such as routine service, periodic modification, equipment replacement, enhancement of security features, and patch management in its budgeting.
- Maintain a process for tracking IT investments and the performance of funded projects.
- Perform and use periodic performance reporting to provide senior management and the board of directors with appropriate dashboards or similar reports to capture results for performance objectives and inform decision-makers about the sustainability and viability of both existing and future projects.

FHFA Uses a Risk-Based Approach for Its Supervisory Activities

In its Enterprise Supervision Program Operating Procedures Bulletin (OPB) (February 25, 2020), DER describes its risk-based approach, which consists of preparing an annual risk

⁶ GAO defines an IT investment portfolio as a combination of all IT assets, resources, and investments owned or planned by an organization in order to achieve its strategic goals, objectives, and mission. Additionally, an IT project is defined as an organizational initiative that employs or produces IT or IT-related assets. Each project has or will incur costs, expects or will realize benefits, has a schedule of project activities and deadlines, and has or will incur risks.

assessment as the foundation for DER’s examination work. DER then utilizes the annual risk assessment to develop risk-based examination plans. Examination plans document all planned monitoring and targeted examination activities to assess the Enterprise’s financial condition and the effectiveness of its risk management practices. Examination plans also document activities to monitor and assess management’s implementation of corrective actions to address supervisory matters. Examiners execute DER’s examination plans by conducting monitoring activities and targeted examinations. Lastly, DER targeted examinations focus on business or functional areas, programs, products, processes, or controls.

According to DER’s Enterprise Supervisory Risk Assessments OPB (February 24, 2020), the annual risk assessment describes significant developments affecting the Enterprises’ business operations and risk exposures, and documents DER’s view of the risk profile⁷ of the Enterprises.⁸ The annual risk assessment identifies potential areas of supervisory focus for examination activities, thereby guiding the development of DER’s risk-based examination plans. DER adds that each annual risk assessment is based on current information about macroeconomic factors, market developments, the Enterprise’s operations, and the Enterprise’s risks and risk management.

Concerns With Potential Mismanagement of Fannie Mae’s IT Funds

We conducted this audit in response to allegations of potential mismanagement of IT funds by a member of Fannie Mae management.

FACTS AND ANALYSIS

DER Effectively Followed Its Risk-Based Approach in Its Oversight of Fannie Mae’s IT Investment Management

We found that DER effectively followed its risk-based approach in its oversight of Fannie Mae’s IT investment management during the scope period. Specifically, DER did not identify IT investment management as a risk for Fannie Mae during the scope period. Also, DER’s annual risk assessments for the calendar year 2021 and 2022 examination cycles did not identify Fannie Mae IT investment management as a risk area. As such, DER did not conduct any examination activities focusing on Fannie Mae IT investment management during the

⁷ The Office of Management and Budget memorandum M-18-16, *Appendix A to OMB Circular No. A-123, Management of Reporting and Data Integrity Risk* (June 6, 2018), states a risk profile is an identification and assessment of risk.

⁸ DER’s Enterprise Supervisory Risk Assessments OPB establishes procedures for annual Fannie Mae and Freddie Mac risk assessments.

scope period. We also found that DCOR was not required to provide oversight of Fannie Mae's IT investment management. DCOR reviewed Fannie Mae's annual operating budget, which lists funding for IT investments, but DCOR is not required to provide oversight of Fannie Mae's IT investments. According to FHFA's Fannie Mae 2017 Letter of Instruction, Fannie Mae is not required to submit individual components of its annual operating budget, including IT, to FHFA. As such, Fannie Mae included their IT investments in their 2021 and 2022 annual operating budgeting submission, but not individual IT components.

Because DER did not conduct any examination activities of Fannie Mae's IT investment management during the scope period, and we received allegations related to mismanagement of IT funds by a member of Fannie Mae's management, we analyzed Fannie Mae's management of three major IT investments to determine whether Fannie Mae adhered to FHFA's expectations in AB 2015-06. We found that Fannie Mae's management of the three major IT investments complied with FHFA's expectations in AB 2015-06 during the scope period. Specifically, Fannie Mae:

- Used a risk-based approach at both the portfolio level and at the project level to ensure that IT investments aligned with its strategic priorities and line of business objectives. Fannie Mae documented its risks in meeting material summaries and agendas for IT investment planning and ongoing Technology Risk Committee⁹ reviews.
- Documented the risks that may impact IT funding proposals for the three major IT investments through its Initial Investment Reviews¹⁰ to determine project initiations.
- Performed cost benefit analysis that compared various costs with the benefits that the proposed IT investments would return to inform the prioritization of IT investments and funding decisions, and documented the analysis in Digital Transformation Financial Model, Strategy Update, Enterprise Cloud Program, Enterprise Operating Model, Process Efficiency Automation Center of Excellence Financial Review documents, and Key Results Dashboard.
- Included IT investments over multiple budget cycles and ensured funding was available through Fannie Mae's administrative expenses¹¹ for ongoing maintenance.

⁹ Fannie Mae's risk committees oversee risk management activities.

¹⁰ An Initial Investment Review is used to review the prioritization and planning considerations of an investment. During the Initial Investment Review all components of the business case are evaluated, and then it is approved for execution.

¹¹ The administrative expenses provided quarterly updates of Fannie Mae's spending.

- Maintained performance tracking through IT investment Leadership Council meetings, Governance Council Working Groups, Offsite Shared Services Working Session, and IT investment biweekly updates and metrics to support decision making.
- Maintained periodic performance reporting dashboards, such as the Fannie Mae WHY dashboard,¹² Business and Technology Cloud Leadership Council minutes, and a Master Decision Tracker to capture results for performance objectives and inform decision-makers for IT investments.

Lastly, in our review, we did not find evidence suggesting mismanagement of IT funds in the three major IT investments during the scope period, as alleged.

CONCLUSIONS

We found that DER effectively followed its risk-based approach in its oversight of Fannie Mae’s IT investment management during the scope period. We also found that DCOR was not required to provide oversight of Fannie Mae’s IT investment management. Further, Fannie Mae adhered to FHFA’s expectations in AB 2015-06 in its management of three major IT investments during the scope period. We did not find evidence suggesting mismanagement of IT funds in our review of Fannie Mae’s three major IT investments.

FHFA COMMENTS AND OIG RESPONSE.....

We provided FHFA an opportunity to comment on a draft of this audit report. FHFA provided technical comments, which we considered in finalizing this report. FHFA management chose not to provide a written response since there were no recommendations.

¹² The WHY dashboard summarized Fannie Mae’s business capabilities, metrics, financial impact, and investment rationale for a program. The WHY dashboard also provides a view of program risk.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective for this audit was to assess whether DER provided effective oversight of Fannie Mae’s IT investment management. As part of our audit, we reviewed the extent and effectiveness of DER’s oversight of Fannie Mae’s IT investments. The scope of this audit covered DER’s examination activities of Fannie Mae’s IT investment management from January 1, 2021, through December 31, 2022. We expanded the audit scope to include DCOR and Fannie Mae.

To accomplish our objective, we performed the following procedures:

- Reviewed *GAO Standards for Internal Control in the Federal Government*, GAO-14-704G (September 2014), and determined that the design control and implement control activities component was significant to this objective, and focused on the underlying principles that management should design control activities to achieve objectives and respond to risks, and implement control activities through policies.
- Reviewed the following FHFA guidance in effect during our review related to DER’s risk assessments and risk-based examinations:
 - FHFA’s Fannie Mae 2017 Letter of Instruction (December 18, 2017), Part B.1 – Other Matters Requiring FHFA Conservator Decision and Board Approval
 - DER’s Enterprise Supervisory Risk Assessment Operating Procedures Bulletin (February 24, 2020)
 - DER’s Enterprise Supervision Program Operating Procedures Bulletin (February 25, 2020)
 - FHFA Advisory Bulletin 2015-06, *Information Technology Investment Management* (September 21, 2015)
- Interviewed and obtained written responses from DER personnel to understand DER’s processes for assessing Fannie Mae’s IT investment management. DER personnel included: the DER Deputy Director; Principal Associate Director and Examiner in Charge; Supervisory and Senior Examiners; Associate Director Office of Enterprise Supervision Operations; and a Supervision Advisor regarding FHFA’s oversight of Fannie Mae’s IT investment management.
- Reviewed DER’s risk assessments and examination plans to determine whether DER identified Fannie Mae IT investment as a risk in its risk assessments or if DER

conducted targeted examinations or ongoing monitoring of Fannie Mae's IT investment management.

- Obtained written responses from DCOR personnel to understand DCOR's oversight of Fannie Mae's IT investment management. Also reviewed that Fannie Mae's annual operating budgets submitted to FHFA included funding for the three major Fannie Mae IT investments. Reviewed FHFA Director approval decision documents for DCOR's oversight responsibilities. Also reviewed DCOR's documentation to determine if DCOR reviewed and routed Fannie Mae's annual operating budgets to the FHFA Director for review.
- Obtained documentation for IT investments in Fannie Mae's 2021 and 2022 budget documents submitted to FHFA and identified a universe of eight major IT investments.
- Selected a judgmental sample of three of the eight major IT investments (37 percent). These investments comprised the following: Enterprise Cloud Program, Enterprise Operating Model, and Process Efficiency Automation Center of Excellence. The Enterprise Cloud Program transitioned and migrated Fannie Mae's assets to third-party cloud-based platforms. The Enterprise Operating Model was intended to modernize Fannie Mae's enterprise architecture. The Process Efficiency Automation Center of Excellence focused on how Fannie Mae enhanced and automated existing processes to enable efficiency. These three major IT investments were selected based on their dollar value. Each investment selected exceeded \$20 million in funding.
- Interviewed and obtained written responses from Fannie Mae personnel to understand Fannie Mae's processes for managing IT investment. Fannie Mae personnel included Chief Technology Officer, Senior Vice President; Deputy Chief Information Officer; Senior Vice President; the Digital Integration and Transformation, Vice President; the Strategy Enablement, Vice President; the Executive Reporting and Metrics, Vice President; the Chief Information Officer, Chief Financial Officer, Financial Planning and Analysis, Senior Director; Fannie Mae Shared Services Operation, Vice President; the Enterprise Planning and Shared Services, Vice President; the Integrated Risk Management, Vice President; Business Administration, Principal; Enterprise Financial Planning and Analysis, Senior Vice President; and a Corporate Finance, Financial Planning and Analysis, Director.
- Analyzed Fannie Mae's documentation for three major IT investments to determine whether Fannie Mae adhered to FHFA's expectations in AB 2015-06.

We conducted this performance audit between March 2023 and November 2023 in accordance with generally accepted government auditing standards. Those standards require

that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

ADDITIONAL INFORMATION AND COPIES.....

For additional copies of this report:

- Call: 202-730-0880
- Fax: 202-318-0239
- Visit: www.fhfaoig.gov

To report potential fraud, waste, abuse, mismanagement, or any other kind of criminal or noncriminal misconduct relative to FHFA's programs or operations:

- Call: 1-800-793-7724
- Fax: 202-318-0358
- Visit: www.fhfaoig.gov/ReportFraud
- Write:

FHFA Office of Inspector General
Attn: Office of Investigations – Hotline
400 Seventh Street SW
Washington, DC 20219