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Freddie Mac’s mission is to provide liquidity, stability and affordability to the U.S. housing market, including multifamily housing. The company has been active in the multifamily housing sector since the 1980s. Of the multifamily division’s 725 employees, approximately 200 are responsible for master and special servicing functions within the multifamily asset management and operations group (MAMOG).

Freddie Mac funded $73.2 billion of multifamily loans in 2017 and securitized $68.1 billion primarily through K-deal transactions. During 2017, the company continued to expand financing initiatives through a variety of new securitizations for value-add, tax exempt, seasoned and large loans, workforce housing, seniors housing and green initiative collateral, among others. In 2017, more than 50% of loans purchased by Freddie Mac were excluded from the FHFA purchase limit. The company continues to increase servicing staff and enhance technology to support portfolio growth driven by these new initiatives.

The company retains master servicing responsibility for certain K-series single-borrower, supplemental, third-party originated, tax exempt, single asset/sponsor and portfolio loans as well as small balance loan transactions. The company’s named master servicing securitization portfolio grew significantly to include 82 transactions totaling $21.5 billion as of March 2018, an increase from 42 transactions totaling $12.8 billion as of year-end 2016. By transaction count, more than one-half of the company’s master servicing assignments were small balance transactions, which are expected to continue to grow by approximately one transaction per month through 2019.

The special servicing portfolio, which consists of legacy held for investment loans, loans pending securitization and securitizations from investment funds, continues to decline modestly year over year to 4,629 loans totaling $53.7 billion as of March 2018 from 5,290 loans totaling $61.7 billion as of year-end 2016.

Servicer Ratings
- Fitch rates primary and master servicers, which protect the interests of the certificateholders in the trust, by servicing and administering the mortgage loans. The primary servicer is responsible for day-to-day servicing functions, while the master servicer is responsible for monitoring the activities of the primary servicers, investor reporting, and timely remittance of funds to trustees.
- Fitch also rates special servicers, which are key to maintaining the credit quality of a pool containing nonperforming commercial mortgages and real estate-owned assets. The special servicer is responsible for working out loans, foreclosing, and liquidating assets.
- In assessing and analyzing the capabilities of primary, master, and special servicers, Fitch reviews several key factors, including the management team, organizational structure and operating history, financial condition, information systems, and, with respect to the special servicer, workout and asset disposition experience and strategies.
- Fitch rates commercial mortgage primary, master, and special servicers on a scale of 1 to 5, with 1 being the highest rating. Within each of these rating levels, Fitch further differentiates ratings by plus (+) and minus (−) as well as the flat rating.
Key Rating Drivers

Company/Management: Given its government-sponsored enterprise (GSE) status, Freddie Mac has a significant role in the origination and servicing of multifamily debt in the U.S. Freddie Mac’s leadership team includes highly experienced managers with significant commercial real estate servicing and securitization experience supporting the company’s capital markets transactions.

Procedures and Controls: Freddie Mac maintains thorough and detailed policies and procedures, as well as several levels of internal controls administered both at the corporate level and within the multifamily division to monitor compliance. The company’s multifaceted control environment, consisting of controls within MAMOG and at the enterprise level, is among the most robust of servicers rated by Fitch Ratings.

Loan Administration: Freddie Mac has extensive experience performing primary (seller/servicer) oversight, advancing and investor reporting. The company maintains a robust and highly integrated technology platform that supports servicing functions and allows for the efficient processing of information for loan accounting, surveillance and investor reporting.

Defaulted, Non-Performing Loan Management: While default volume is limited, MAMOG has a long history of multifamily workout experience and is supported by detailed policies and procedures, internal controls, asset management technology and delegations of authority in place of a formal credit committee.

Technology: Freddie Mac utilizes the Enterprise Loan Servicing application as its system of record to support its role as master servicer for securitized transactions. The company’s proprietary servicing systems are comparable with other Fitch-rated servicers in functionality and benefit from dedicated support resources.

Staffing and Training: Aggregate turnover remained low at 12% for master servicing and 4% for special servicing. The majority of turnover continues to be internal transfers to other groups, particularly underwriting. Irrespective of turnover, both the master and special servicing groups increased the aggregate number of employees as a result of increased issuance. Master servicing senior and middle managers have an average of 17 years of industry experience and 11 years of company tenure. Special servicing senior managers average 32 years of experience and seven years of tenure, while middle managers average 24 years of experience and eight years with the company.

Financial Condition: Fitch maintains a Long-Term Issuer Default Rating (IDR) for Freddie Mac of ‘AAA’/Stable. Freddie Mac’s ratings are directly linked to the U.S. sovereign rating, based on Fitch’s view of the U.S. government’s direct financial support.

Operational Trends

<table>
<thead>
<tr>
<th>Operational Trend</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Plan</td>
<td>Growth in portfolio with demonstrated sponsor support investing in servicing infrastructure</td>
</tr>
<tr>
<td>Servicing Portfolio</td>
<td>Greater than 10% year-over-year growth by loan count</td>
</tr>
<tr>
<td>Financial Condition</td>
<td>Outlook/Trend</td>
</tr>
<tr>
<td>Staffing</td>
<td>Staffing growth</td>
</tr>
<tr>
<td>Technology</td>
<td>Stable technology platform</td>
</tr>
<tr>
<td>Internal Controls</td>
<td>Strong/Consistent internal control resources; fully articulated three lines of defense; no material audit findings</td>
</tr>
<tr>
<td>Servicing Operations</td>
<td>Strong/Consistent operations organized around servicing tasks relative to portfolio; functional growth into new product types or business line</td>
</tr>
</tbody>
</table>
Structured Finance
Commercial Mortgage Servicer

Company Overview

Freddie Mac was chartered by Congress in 1970 with a public mission to stabilize the country’s residential mortgage markets and expand opportunities for homeownership and affordable rental housing. Freddie Mac’s statutory mission is to provide liquidity, stability and affordability to the U.S. housing market. To fulfill its mission, Freddie Mac purchases loans in the secondary mortgage market through a national network of approved mortgage lenders. The GSE maintains three business lines: single-family guarantee for single-family loans; multifamily for rental housing; and capital markets (formally investments) to manage an investment portfolio.

The goal of the multifamily division is to promote an ample supply of affordable rental housing by purchasing mortgages secured by apartment buildings with five or more units. Mortgages are purchased from an approved seller/servicer network of 29 companies as of March 2018 based on Freddie Mac-established guidelines. The multifamily division also securitizes the mortgages and sells the bonds and servicing in the secondary market. Approximately 90% of Freddie Mac loan purchases are targeted for securitization in K-series or small balance loan transactions, which total $247.2 billion in outstanding balance; the program was established in 2009. Freddie Mac generally does not retain a controlling interest or servicing for the transactions itself but typically provides credit guarantees for the senior class of bonds.

In addition to its purchase of core multifamily assets, Freddie Mac implemented several new programs in 2016 and 2017, further broadening its portfolio. Additional programs include a green advantage program to support assets pursuing environmental improvements, as well as loans supporting multifamily assets with lease-up, value-add or rehabilitation business strategies. In addition to providing guarantees on $196.8 billion in outstanding securities on the K-series and small balance loan transactions, which represented the multifamily division’s largest product as of April 2018, MAMOG services four other product lines:

- A $5.4 billion portfolio of tax-exempt multifamily bonds (TEBS), through which a sponsor transfers privately placed tax-exempt multifamily revenue bonds and related taxable bonds or mortgages to Freddie Mac in exchange for Freddie Mac senior class A certificates.
- $1.8 billion in swap participation certificates (PCs) secured by multifamily mortgages, in which a Freddie Mac seller/servicer exchanges a pool of mortgages for Freddie Mac PCs.
- A $15.1 billion bond portfolio, for which Freddie Mac provides credit enhancement for fixed- or variable-rate, tax-exempt and taxable-tail housing revenue bonds.
- $38.1 billion in loans held by Freddie Mac for investment, including balance sheet assets, loans held for sale, subordinate supplemental loans or other loans that fall outside the current parameters of the K-series securitization model.

Employees of the multifamily division are located within the company’s McLean, VA headquarters, as well as the Chicago and Los Angeles offices with the majority of master and special servicing employees located in McLean.

Servicing Portfolio Growth

<table>
<thead>
<tr>
<th></th>
<th>Master</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>YE15</td>
<td>1,200</td>
<td>0</td>
</tr>
<tr>
<td>YE16</td>
<td>1,000</td>
<td>200</td>
</tr>
<tr>
<td>YE17</td>
<td>800</td>
<td>400</td>
</tr>
</tbody>
</table>

(% Change from Prior Period)

Note: Special servicing includes loans actively in special servicing (including REO).
Source: Freddie Mac, Multifamily Division.

Office Locations

- McLean, VA
## Company Overview (Cont’d)

### All Servicing Types

<table>
<thead>
<tr>
<th></th>
<th>3/31/18 % Change</th>
<th>2017 % Change</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Servicing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPB ($ Mil)</td>
<td>241,618.8</td>
<td>237,056.8</td>
<td>200,377.6</td>
</tr>
<tr>
<td>No. of Loans</td>
<td>21,416</td>
<td>20,723</td>
<td>16,810</td>
</tr>
<tr>
<td><strong>Master Servicing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPB ($ Mil)</td>
<td>21,484.0</td>
<td>19,897.0</td>
<td>12,034.0</td>
</tr>
<tr>
<td>No. of Loans</td>
<td>6,514</td>
<td>6,062</td>
<td>3,199</td>
</tr>
<tr>
<td><strong>Special Servicing — Named</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPB ($ Mil)</td>
<td>53,654.8</td>
<td>58,981.9</td>
<td>61,666.2</td>
</tr>
<tr>
<td>No. of Loans</td>
<td>4,629</td>
<td>4,745</td>
<td>5,290</td>
</tr>
<tr>
<td><strong>Special Servicing — Active</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPB ($ Mil)</td>
<td>378.0</td>
<td>313.0</td>
<td>174.0</td>
</tr>
<tr>
<td>No. of Loans</td>
<td>21</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

*a* Including REO. UPB — Unpaid principal balance.  
Source: Freddie Mac, Multifamily Division.
“Given the multifamily division’s exclusive multifamily focus, the commercial mortgage servicer ratings are limited to the ‘2’ category.”
Fitch has publicly rated Freddie Mac ‘AAA’/Stable since April 2018. The ‘AAA’ rating of Freddie Mac is directly linked to the U.S. sovereign rating, based on Fitch’s view of the U.S. government’s direct financial support of the two housing GSEs.

The housing GSEs are among the most active issuers in the capital markets and continue to benefit from meaningful financial support from the U.S. government. A key rating driver and Fitch’s rationale for aligning the GSEs’ ratings to the U.S. government rating is the U.S. Treasury’s Senior Preferred Stock Purchase Agreement (PSPA). Under the PSPA, the U.S. Treasury is required to inject funds into Freddie Mac to maintain positive net worth, so that each firm can avoid being considered technically insolvent by their conservator.

As expected, the GSEs both required draws on their respective lines with the Treasury after being forced to write down the valuations of their deferred tax assets, due to the corporate tax rate being reduced to 21% from 35%. While the tax cut will likely enhance the GSEs’ long-term profitability, it also produced a significant one-time hit to earnings and capital. Freddie Mac took a write down of $5.4 billion and needed a draw of $312 million at the end of 2017. The remaining funding available to Freddie Mac after the required draws will be $140.2 billion.

Although not expected, draws could also become necessary if economic conditions worsen materially causing credit performance of the GSEs’ loan books to deteriorate. Nonetheless, additional capital draws from the Treasury would not change Fitch’s current view of the ratings in light of the U.S. government’s direct financial support assumptions.
Employees

As of March 31, 2018, MAMOG consisted of 258 employees, with 186 responsible for master servicing functions and 26 for special servicing and asset management. The remaining 46 employees perform multifamily servicing or support functions outside master and special servicing.

The master servicing group added approximately 20 positions in 2017, the second consecutive year of growth, and is expected to continue to expand due to increased mortgage purchase activity and securitization activity for multifamily and affordable housing assets as well as new product initiatives. Furthermore, increased purchase activity is expected to continue to contribute to an increase in internal transfers as opportunities within the multifamily production and underwriting departments become available.

Master Servicing

Master servicing employees are divided among loan accounting, loan administration, the governance and business services (GBS) team, customer compliance management (CCM), and the operations, surveillance and servicing and data management groups. These groups are responsible for all core servicing functions for Freddie Mac’s multifamily commercial mortgage products, which include TEBS, the 45-day, 55-day and 75-day (swap) PCs, bond credit enhancement, Freddie Mac K-series transactions, the small balance transactions and the company’s retained portfolio.

The departments responsible for master servicing functions are led by 10 senior managers averaging 20 years of commercial mortgage experience and 16 years of tenure with Freddie Mac. Forty-nine midlevel managers average 16 years of experience and 10 years of tenure, while the remaining staff of 127 average seven years of experience and five years of tenure.

Aggregate turnover among master servicing employees remained low at 12% (6% excluding internal transfers), down slightly from 14% the prior year. Turnover was the result of the departure of two senior managers, including one retirement and one internal transfer, as well as two middle management and 17 staff-level employees. The majority of staff departures (52% of total separations) were internal transfers to other Freddie Mac groups, followed by voluntary separations at 38%. All departures occurred in the

<table>
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<th>Employee Statistics</th>
<th>2018</th>
<th>2017</th>
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<tbody>
<tr>
<td></td>
<td>No. of Employees</td>
<td>Avg. Years Industry Experience</td>
</tr>
<tr>
<td>Master Servicing</td>
<td></td>
<td></td>
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<tr>
<td>Senior Management</td>
<td>10</td>
<td>20</td>
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<tr>
<td>Middle Management</td>
<td>49</td>
<td>16</td>
</tr>
<tr>
<td>Servicing Staff</td>
<td>127</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>186</td>
<td>—</td>
</tr>
<tr>
<td>Special Servicing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior Management</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>Middle Management</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>Servicing Staff</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>—</td>
</tr>
</tbody>
</table>

Source: Freddie Mac, Multifamily Division.

Note: The data in Fitch’s review does not reflect the May 2018 departure of the senior director of the surveillance group. Subsequent to this voluntary separation, the group was realigned to report to the vice president of special servicing.

Loan and Employee Counts

Source: Freddie Mac, Multifamily Division.
Employees (Cont’d)

McLean office, where the majority of servicing employees are based, and did not significantly affect the average experience and tenure of the servicing staff, as all positions were replaced. The number of master servicing employees located in Chicago, all of whom perform loan accounting functions, remains unchanged at five, giving MAMOG the ability to perform master servicing functions outside its headquarters.

Special Servicing

The special servicing group, centralized in McLean, comprises 26 dedicated employees. The group is divided among three teams responsible for asset resolution and REO, structured and securitized transactions and borrower transactions. The majority of employees work on borrower consent matters for non-defaulted loans and proactively work with borrowers to resolve potential defaults, particularly for loans with higher risk ratings.

Two special servicing employees are actively working out defaulted loans and are considered asset managers; they average 34 years of experience and five years of tenure. The ratio of non-CMBS nonperforming assets to asset managers is approximately 10:1, two of which are REO. While the number of REO assets is lower than that of other Fitch-rated special servicers, asset managers have significant experience with REO dispositions. Fitch notes that Freddie Mac’s general practice is to liquidate REO assets within nine months to 12 months, resulting in shorter REO disposition times as compared to Fitch-rated special servicers and historically less REO assets. As of March 2018, Freddie Mac had yet to experience any defaults in its named CMBS special servicing portfolio.

Special servicing is led by four senior managers averaging 32 years of industry experience and seven years of tenure. Seven middle managers, who provide sufficient management depth, average 24 years of experience and eight years of tenure, while staff employees average 13 and 12 years of experience and tenure, respectively.

Overall turnover within special servicing was low at 4% as of March 2018, down from 13% the prior year. Turnover consists of one staff-level voluntary separation who had been with the company less than two years.

Training

Employee training is administered through Freddie Mac University (FMU), which offers a variety of courses, including several focused on industry topics. The program includes over 400 Web-based and 150 instructor-led training opportunities. The FMU talent development team consults with divisional partners to assess division-specific training needs and brings in relevant training as appropriate. Furthermore, the team evaluates training needs identified in other forums, such as through employee engagement surveys, the leadership talent review process and employee network groups. MAMOG has two employees dedicated to supporting training curriculum development.

In addition to formal FMU training opportunities, MAMOG employees receive training for system enhancements and specific servicing functions, and have educational briefings with industry-leading speakers. New training initiatives in 2017 included AML/OFAC/Fraud training, CMBS E-Primers by CREFC, SBL site visit training, Freddie Mac capital markets & production and sales, information security risk and privacy basics, and fair lending practices. In 2018, Freddie Mac transitioned its multifamily curriculum planner and staff development offerings to a new SharePoint site.

Employee training is formally tracked within FMU and reviewed by managers quarterly. MAMOG employees have a 40-hour training objective consisting of annual compliance training and a mix of internal and approved external training options, including MAMOG-specific courses. Additionally, employees are assigned mandatory corporate refresher courses every one to three years. Master servicing employees completed an average of 35 hours of training per employee for the 12 months ended March 2018, and special servicing employees, inclusive of surveillance, completed an average of 47 hours for the same period.
Operational Infrastructure

**Outsourcing**

Freddie Mac neither outsources any remitting or reporting functions nor offshores any master or special servicing functions. The company’s individual seller/servicers are responsible for day-to-day primary loan servicing functions with oversight by Freddie Mac, which retains approval authority. Special servicing functions for balance sheet loans are performed by the special servicing group in the event of default, and the group is responsible for directing seller/servicers’ primary servicing functions.

**Vendor Management**

Vendor performance is monitored by contract owners within the individual business areas, who are responsible for the day-to-day oversight of vendors. The GBS group provides senior management a monthly summary of vendor performance and costs.
Information Technology

MAMOG relies on a suite of legacy applications, as well as a database called Multifamily Processing System (MPS) and MultiSuite, both internally developed, to support core servicing functions, except for small balance loan master servicing; MPS contains separate applications to support loan accounting, purchase tracking and cash management functions. MultiSuite also comprises separate but integrated applications for bonds, TEBS loan accounting, investor reporting and bond wire requests.

MAMOG utilizes Enterprise! Loan Servicing application as its system of record for transactions in which Freddie Mac retains master servicing responsibility, including small balance loan and certain K-series transactions. The use of Enterprise! allows MAMOG to accept loan servicing files from small balance seller/servicers, perform quality control reviews of the data and report the data using the CREFC Investor Reporting Package (IRP) reports.

Additionally, MAMOG uses a variety of applications to support its core business processes for asset management and surveillance functions. The systems, which are developed and maintained by Freddie Mac and third-party vendors, are integrated, with nightly data updates from a centralized database. Examples of core applications used by the asset management and operations group are:

- Property Reporting System (PRS) — facilitates the workflow process of collecting and validating loan data received from seller/servicers.
- Consent Request Tracker (CRT) — tracks and monitors servicer performance on borrower consent requests for securitized K-series and retained portfolio loans.
- Streamlined Management Analytical and Reporting Tool (SMART) — a core analytical application for property analysis, loan risk rating, asset management, property valuation and business plan development for special servicing and loss mitigation monitoring.
- Multifamily Securities Investor Access (MSIA) — a Web-based interface that allows investors access to CREFC data elements and transaction documents for Freddie Mac K-securitized transactions.
- Asset Resolution Tool (ART) — a loan valuation tool within SMART used to evaluate resolution strategies.

Asset management reporting is available using a large number of reports within the core applications and through ad hoc queries in the SMART application. All reports can be exported to Excel as needed.

The multifamily technology group works for various technology enhancement through the year that encompass multiple product lines from underwriting and loan purchase to servicing as well as exchanging data with borrowers, investors, and seller/servicers. Future enhancements include the ongoing development of a data warehouse, incremental improvements to CRT, PRS, SMART and an Enterprise upgrade in late 2018.

Applications used by Freddie Mac have sufficient capacity and are continually monitored by Freddie Mac’s centralized information technology (IT) department. The IT department also has a help desk that provides application and employee support. Within the IT department, a dedicated team of approximately 73 employees is responsible for supporting multifamily applications and systems, including ongoing enhancement to applications.
Information Technology (Cont’d)

Disaster Recovery/Business Continuity Plan

Disaster recovery and business continuity plans are developed by Freddie Mac’s enterprise business resiliency group. Freddie Mac’s corporate policy requires business lines to perform an annual business impact analysis and maintain a business resiliency plan to assist in the recovery of critical business functions. Business lines are further required to test and validate business continuity procedures at least annually. Backup facilities for the multifamily division are located in Herndon and Reston, VA, about 15 miles from the company’s primary servicing location. The backup facilities are supported by backup generators that are tested weekly.

The multifamily servicing group maintains business continuity plans and recovery plans that include process-level workarounds, allowing teams located in both McLean and Chicago to perform critical cash and legal functions in the event of a business disruption. Additionally, an out-of-region data center in Boulder, CO, is maintained, to which production data are replicated on a continual basis.

Freddie Mac conducted a disaster recovery test in 1Q18 related to technology, application and data recovery with successful results. Additionally, the multifamily group with Freddie Mac conducted an out-of-region test in 2017 and is scheduled to test its Reston recovery site in 2018. The test included moving critical business processes over to a secondary location simulating a regional business interruption; results of the test are being examined, but no significant issues were reported.

The maximum possible data loss for MAMOG varies by application. Applications associated with cash processing and investor reporting utilize real-time data replication, resulting in minimal data loss in the event of a power failure. However, special servicing asset management data are backed up daily, resulting in the potential for 24 hours of data loss.

The recovery time for servicing applications also varies by function. Applications that support master servicing functions (such as cash processing and investor reporting) have a recovery time of 24 hours or less. Special servicing asset management systems that support borrower transactions, REO and data management have a recovery time of one to two weeks, which is the longest of Fitch-rated special servicers.
"Freddie Mac has launched an ambitious digital transformation project to reengineer the collection and use of data for its customers and employees. The goal of the multiyear project is to increase responsiveness, optimize data management enterprisewide, enhance workflows and tools to be mobile and enhance the overall user experience internally and externally."
Internal Control Environment

MAMOG maintains an effective and multifaceted internal control environment. Beginning with policies and procedures, the company operates a three lines of defense risk management framework to clarify internal roles and controls. MAMOG’s management is the first line, responsible for ongoing oversight of assigned processes, risks and controls. Enterprise Risk Management (ERM) and compliance are responsible for developing frameworks the business uses and for monitoring the first line. Internal audit is the final line, responsible for assessing the effectiveness of and providing assurance on business processes.

Policies and Procedures

Freddie Mac maintains thorough and complete policies and procedures, available online to all employees through a SharePoint site and found by Fitch to be clear and concise, providing detailed instructions with illustrations. Policies and procedures are assigned to senior group members for review and revision annually and approved by the senior management of asset management and operations. Prior to publication, each procedure is also reviewed by the governance and control team for consistency to ensure compliance with Freddie Mac’s established credit policy. The GBS team is responsible for monitoring and testing compliance with established policies and procedures as well as internal and external auditors.

The multifamily credit policy team maintains responsibility for maintaining, updating and publishing the policies used by MAMOG. Recent policy and procedure changes largely focused on new product initiatives or enhancements to process controls such as enhancements made to cash management controls for securitizations in which Freddie Mac is the master servicer.

Compliance and Controls

Freddie Mac maintains a corporate compliance department, within the ERM group, comprised of approximately 50 staff members reporting to the CCO and, ultimately, the CEO. The compliance department is made up of eight subgroups: anti-money laundering/foreign assets control; business and project management; capital markets compliance; ethics and business practices; loan, conservator and Making Home Affordable–Compliance MHA-C; privacy; compliance program management; and regulatory affairs. The regulatory affairs group, which is responsible for responding to regulatory inquiries, transitioned from ERM to the administration division in 2018. The compliance division works with MAMOG, implementing and overseeing an integrated framework of internal controls with the goal of maintaining compliance with legal and regulatory matters, as well as corporate policies and procedures.

Within the enterprise-level GBS team, three employees are dedicated to MAMOG and an additional 21 support other multifamily functions and can provide additional support to MAMOG, if needed. The team is responsible for internal oversight of MAMOG, including quarterly self-assessment and testing of key financial controls performed by management, independent control testing, procedure management, vendor management and business continuity planning. The results of MAMOG’s quarterly operational tests are reviewed and reported through the company’s corporate governance, risk and compliance tool (BWise) as well as reviewed in formally in the multifamily operational risk committee each quarter. Fitch reviewed a sample of key controls pertaining to loan servicing and investor-reporting functions and found them to be well documented and effective.

Separately, the ERM group establishes the risk and control framework that for the multifamily division, which allows for risk acceptance in certain low risk situations. SOX controls testing team with in the finance corporate controller group facilitates independent financial SOX control testing annually.

Internal Audits

Freddie Mac maintains a corporate internal audit function responsible for auditing all business functions on a risk-adjusted basis. Internal audit is staffed by 105 professionals as of April 2018, the majority of whom are certified audit professionals, reporting to the audit committee of Freddie Mac’s board of directors. The internal audit organization, based on an annual comprehensive risk assessment of each department, process and product within Freddie Mac, identifies inherent risks and assigns a

Note:
Fitch reviewed the Multifamily Operational Risk Committee reports for the first half of 2018, which serve as the basis for quarterly compliance and risk reviews of the organization and meeting minutes. The report identifies operational risks across all segments of multifamily, summarizes and rates key risk indicators, tracks outstanding compliance issues and provides a heat map detailing individual compliance performance and trends for key controls. Fitch found the report to be an extremely effective tool to monitor compliance and one of the most comprehensive and detailed of Fitch-rated servicers. Fitch also noted quarterly compliance meetings include senior business line representatives as well as staff internal audit and compliance.

Note:
Fitch reviewed the monthly management report of MAMOG, which summarizes the staffing, operational and financial performance of the group. Fitch found the report to be thorough and highly detailed with respect to operational performance monitoring, internal control testing and monitoring, and governance oversight. Findings pertaining to governance, which were minimal, were clearly defined and included management responses, corrective actions and remediation deadlines.
risk score based on credit, market, operational and strategic, reputational, regulatory and legal risks. Internal audit also determines the frequency of audits (from one to four years). Freddie Mac revised its risk rating methodology in 2018 to align with its corporate risk rating methodology and thresholds with minimal impact to the multifamily division other than an increase in the number of auditable entities.

The multifamily audit universe is defined as 14 entities: investing, costing and spread volatility management; loan pricing and securitization; asset management (surveillance and data management); loan sourcing and underwriting; accounting and reporting; seller/servicer compliance management; data integrity and rules management; loan purchase operations; valuation; asset management (special servicing); loan loss reserve and credit loss stress test; operational risk governance; servicing and MTA compliance; products; and modeling. Of the 14 auditable areas, five have a low risk rating and are reviewed every four years; seven are medium and reviewed every three years; and two are classified as high and reviewed every two years. The multifamily division does not have any very high risk rated entities. Five audits are scheduled in 2019.

The internal audit group performed four audits in 2018 covering asset management (surveillance); asset management (special servicing); products; and accounting and reporting. Each of the audits resulted in a satisfactory opinion, the highest possible rating, and contained a minor finding that Fitch confirmed was not material to servicing operations.

Business units self-assess their risks and controls quarterly to supplement internal audits. The corporate compliance, internal controls and internal audit organizations of Freddie Mac perform annual internal reviews of the multifamily division as well. Ongoing compliance monitoring is performed by ERM, which reviews and approves certain credit decisions of the asset management and operations group.

External Audits

PricewaterhouseCoopers LLP (PwC) completed a Uniform Single Attestation Program (USAP) audit in 2017 for Freddie Mac's master and special servicing portfolios. The report, which was issued on April 13, 2018, contained no findings.

Additionally, PwC performs an annual audit of Freddie Mac, as does FHFA, which regulates Freddie Mac. PwC is responsible for auditing Freddie Mac's quarterly and annual financials to ensure that the financial statements are free of material misstatements. As part of its review, PwC tests the key financial controls of the multifamily division throughout the year to confirm their successful execution.
Master Servicing

Freddie Mac retains master servicing responsibility for certain K-series single-borrower, supplemental/junior participation loans, small balance loans, tax-exempt loans and third-party securitizations for which Freddie Mac provides a guaranty. By number of transactions, approximately 57% of the master servicing portfolio is comprised of small balance transactions and 23% by supplemental/junior participation loans.

The company continued to experience significant growth in its CMBS master servicing portfolio in 2017 through the self-appointment as master servicer for 38 transactions, followed by an additional five transactions in 1Q18. Of the 43 transactions added during the 15 months ended March 2018, 22 were small balance securitizations with the remaining transactions consisting of supplemental loans, single asset/sponsor, guaranty transactions, tax exempt loans, and securitizations from investment funds. As of March 31, 2018, the named master servicing portfolio totaled $21.5 billion, comprising 82 transactions, nearly double the $12.0 billion and 42 transactions at year-end 2016.

Whereas Freddie Mac currently does not intend to act as master servicer for traditional K-series transactions, Fitch expects the company’s portfolio to grow, driven largely by small balance and supplemental loan transactions as well as limited one-off assignments. In addition, the company continues to perform master servicing functions, such as primary (seller/servicer) oversight, advancing and investor reporting for approximately 4,500 non-CMBS loans held for investment or pending securitization totaling $47.8 billion as of March 2018.

Primary Servicer Oversight

The CCM group within MAMOG performs primary servicer oversight for 29 conventional, targeted affordable housing, small balance and/or single-family rental seller/servicers and nine servicers of loans purchased under prior programs or negotiated transactions (referred to as legacy loans), which collectively serviced in excess of 10,000 loans totaling $69.2 billion as of March 2018, approximately 30% of which are securitized by balance for which Freddie Mac is the named master servicer.

Seller/servicers are evaluated annually to determine the scope of audit based on their last audit, audit findings, portfolio size, organizational changes, loan performance and business-area feedback. Freddie Mac’s review of seller/servicers includes loans securitized in its K-series transactions and small balance

Note:
The CCM group performed seven on-site audits and 17 desktop audits of seller/servicers in 2017.
transactions for which Freddie Mac is the named master servicer as well as loan held for investment or pending securitization. The company shares a summary of its seller/servicer reviews with master servicers for K-series transactions for reference or to supplement their own oversight efforts.

Seller/servicers are also required to submit annual certifications of compliance and obtain Freddie Mac’s approval for any organizational changes. The nine servicers of legacy loans are also monitored by CCM and audited, albeit less frequently based on a risk rating assessment as well as the size of their portfolios, which varies from $1.4 billion (210 loans) to $3.0 million (one loan). In 2017, CCM performed seven full-scope audits and 19 limited-scope desktop audits of seller/servicers and expects to complete 12 and 19, respectively, in 2018.

Oversight of Freddie Mac’s seller/servicers consists of either full- or limited-scope annual audits of each seller/servicer’s internal controls, loan underwriting and setup, servicing and accounting functions, investor reporting and overall compliance with Freddie Mac’s servicing guidelines. Seller/servicer oversight is extensive and includes input from various groups within Freddie Mac, including loan administration and servicing, which provides feedback based on direct experience. In addition, warehouse line compliance and reconciliation, disaster recovery/business continuity plans, anti-fraud programs, data integrity, third-party evaluations and corporate eligibility requirements are reviewed.

Beyond the formal audits of seller/servicers, Freddie Mac holds an annual performance review meeting with each seller/servicer to discuss its performance. The performance review meeting is attended by senior managers of Freddie Mac and serves as a compliance and working relationship review through which the company provides feedback on the seller/servicer’s performance and solicits feedback on Freddie Mac’s servicing guidelines.

Unlike traditional master servicers, Freddie Mac does not perform primary servicing functions for commercial mortgage loans purchased from its seller/servicers, and the assumption of those duties is outside the company’s current scope of business and capacity. In the event Freddie Mac determines a seller/servicer cannot continue servicing loans, the company maintains portfolio seizure protocols and has agreements with its seller/servicers to immediately transfer the loans. Robust monthly reporting from seller/servicers and ongoing surveillance by MAMOG greatly minimize the risk of a loss of loan data in the event a portfolio of loans needs to be transferred.

**Advancing**

Freddie Mac has varying degrees of advancing obligations for its five key multifamily product types, including advancing principal and interest payments and/or property-protection payments. Advancing determinations and distributions are a collaborative effort between groups within MAMOG based on product type, but are generally led by the special servicing group.

As of April 30, 2018, Freddie Mac had approximately $1.2 million in outstanding principal and interest advances within its master servicing portfolio as well as approximately $5.1 million in advances for K-series transaction for which it maintains a guaranty. The company utilizes Enterprise to track advances and recovery for its master servicing portfolio and an internal proprietary application to track advances in its K-series guaranty portfolio. The multifamily group established a cross discipline advancing credit committee in 2017 comprising individuals from surveillance, operations and accounting, legal and special servicing to review outstanding advances and make non-recoverability determinations. Consistent with other master servicers, the committee meets monthly as necessary and reviews updated loan business plans and asset valuations to support advancing decisions, which are formally recorded in meeting minutes.

Freddie Mac’s largest outstanding advances obligation is for the $196.8 billion K-series guarantee portfolio and, for this, it is required to advance principal and interest payments on bonds guaranteed by the company. As of April 2018, Freddie Mac had approximately $5.2 million in outstanding advances for its K-series guarantee portfolio. In addition, Freddie Mac had advancing responsibility (including property-protection advances) for its $38.1 billion retained portfolio of loans and any loans in special servicing as of the same period totaling approximately $0.2 million.
Master Servicing (Cont’d)

Advances for retained portfolio loans are made in collaboration with the special servicing group for property-protection payments and operating expenses of REO assets. Other products for which the company has advancing responsibility as of April 2017 include: $15.1 billion of bond credit enhancement; $1.8 billion of PCs; $5.4 billion of TEBS and the $25.6 billion named master servicing portfolio.

Investor Reporting

Investor reporting varies by product type and is primarily the responsibility of the loan accounting group. For the TEBS portfolio, the loan accounting group reviews and reconciles bond payment and reporting, as well as information from seller/servicers regarding the payments made to bond trustees. Loan accounting also forwards collateral-level activity to the trustee each month and allocates funds to the appropriate collateral.

The group reviews and reconciles collateral-level reporting and remittance data from seller/servicers for the bond credit enhancement portfolio, including monthly payment advances and recoveries, as well. In addition, loan accounting reconciles monthly principal and interest for retained portfolio loans. At payoff, the group ensures the balance and prepayment fees are calculated, reported and remitted correctly by its seller/servicers. The group performs the same functions for Freddie Mac’s named master servicing portfolio.

While Freddie Mac’s role as master servicer consists largely of one-off single-borrower small balance and supplemental loan transactions sponsored by Freddie Mac, the GSE remains an active participant in monitoring and supporting its entire K-series guaranteed bond portfolio totaling $196.8 billion as of April 2018. The loan accounting group aggregates and compares bond-level transaction files and delinquency data for all K-series transactions and discloses results monthly, both internally and externally, to investors through a free website that includes all CREFC IRP information. In addition, the website allows restricted access to borrower statements, inspections and rent rolls for loans where Freddie Mac is the named master servicer.

Note:

Freddie Mac began using Enterprise! in 2016 to support master servicing of the company’s small balance portfolio. In 2018 the developed processes for whole loan mortgage fund tracking in Enterprise! and automated wire processing providing greater efficiency and accuracy.
Special Servicing

Special Servicing Portfolio
As of March 31, 2018, MAMOG oversaw and performed asset management for its portfolio of approximately 4,500 non-CMBS loans with a balance of $47.8 billion down from $53.1 billion as of year-end 2017. As of the same date, the company was the named special servicer for nine CMBS transactions consisting of 157 loans, none of which has defaulted since issuance. MAMOG’s active special servicing portfolio consists of 19 held-for-investment loans totaling $372.0 million and two REO assets as of March 31, 2018.

The special servicing group resolved 33 loans for the 12 months ended March 2018 totaling $351 million, none of which incurred a loss. Loan resolutions included 19 full payoffs, one discounted payoff, one REO sale and 12 loans that were corrected and returned to performing status. The multifamily assets were located in various states and the outstanding balance of the loans ranged from approximately $210,000 to $44.3 million.

Special Servicing Portfolio Overview

<table>
<thead>
<tr>
<th></th>
<th>3/31/18</th>
<th>% Change</th>
<th>2017</th>
<th>% Change</th>
<th>2016</th>
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<tbody>
<tr>
<td><strong>CMBS</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>No. of Transactions — Special Servicer</td>
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<td>0</td>
<td>9.0</td>
<td>80</td>
<td>5.0</td>
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<td>UPB — Special Servicer ($ Mil.)</td>
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<td>(2)</td>
<td>5,907.8</td>
<td>48</td>
<td>3,985.9</td>
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<td>No. of Loans — Named Special Servicer</td>
<td>157</td>
<td>(5)</td>
<td>166</td>
<td>2</td>
<td>162</td>
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<tr>
<td>UPB — Actively Special Servicing (Non-REO) ($ Mil.)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>No. of Loans — Actively Special Servicing (Non-REO)</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>UPB — REO Assets ($ Mil.)</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>No. of REO Assets</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Non-CMBS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPB — Named Special Servicer ($ Mil.)</td>
<td>47,849.2</td>
<td>(10)</td>
<td>53,074.1</td>
<td>(8)</td>
<td>57,680.4</td>
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<td>No. of Loans — Named Special Servicer</td>
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<td>(2)</td>
<td>4,579</td>
<td>(11)</td>
<td>5,128</td>
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<td>UPB — Actively Special Servicing (Non-REO) ($ Mil.)</td>
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<td>21</td>
<td>307.0</td>
<td>76</td>
<td>174.0</td>
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<td>No. of Loans — Actively Special Servicing (Non-REO)</td>
<td>19</td>
<td>6</td>
<td>18</td>
<td>(28)</td>
<td>25</td>
</tr>
<tr>
<td>UPB — REO Assets ($ Mil.)</td>
<td>6.0</td>
<td>0</td>
<td>6.0</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>No. of REO Assets</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

UBP — Unpaid principal balance. Source: Freddie Mac, Multifamily Division.

CMBS Special Servicing Property Type
(As of March 31, 2018)

CMBS Special Servicing Geographic Distribution
(As of March 31, 2018)

Source: Freddie Mac, Multifamily Division.
Special Servicing (Cont’d)

**Loan Administration**

Portfolio surveillance is conducted by four surveillance teams totaling 25 staff members who are organized based on functional responsibility and product type. The teams consist of guarantor risk & external relations; portfolio surveillance (investment and held for sale loans, targeted affordable loans, and structured products); rehab/preservation, valuation and physical risk; and master servicer and reporting. Analysts are each responsible for approximately 930 loans, including approximately 30 high-risk or watchlist loans on the portfolio team and 2,700 loans per analyst for K-series transactions (for which Freddie Mac is not the special servicer). Freddie Mac previously reorganized surveillance teams to allow greater focus on individual portfolios and dedicate resources to reporting, technology and new initiatives. As part of the reorganization, the group absorbed the physical risk team (previously included in ERM) to enhance surveillance efforts.

Freddie Mac’s surveillance process begins with the collection of detailed loan and property information from its seller/servicer network. Freddie Mac receives quarterly financial information, annual inspections and qualitative management information for all loans in its portfolio. The information received is consolidated within the SMART system used to risk rate loans quarterly. Freddie Mac integrated CREFC data and reporting into its SMART application in 201 streamlining watchlist administration and commentary.

Freddie Mac’s risk-rating process is its primary tool to screen and identify potential problem loans within its portfolio, as well as the foundation for the company’s requirement to establish reserves for potential loan losses. The risk rating is based on an econometric model that produces a loan score reflecting the expected lifetime loss of a given loan. The loan-score criteria factor includes approximately 15 performance aspects of the loan and property, as well as Freddie Mac’s view on multifamily markets, future interest rates and cap rates.

The risk rating is defined on a scale of one to 10, where one is the least risky and 10 the most risky. Loans with high risk ratings are assigned to surveillance analysts who are responsible for developing business plans and ongoing monitoring of the loan. The surveillance group risk rates all loans held within Freddie Mac’s retained portfolio, as well as loans originated for securitization, both during the warehousing period and post-securitization.

**Defaulted/Non-Performing Loan Management**

Freddie Mac’s goal is to resolve non-CMBS loans based on its own best economic interests as lender with consideration of reputational risks. While this is similar to the CMBS servicing standard in terms of obtaining the best resolution based on a net present value (NPV) analysis, Freddie Mac has yet to perform any workouts for securitized loans in which case it considers the economic interest of investors. The asset resolution team is responsible for working out loan defaults and is supported by Freddie Mac’s internal legal counsel, as well as local counsel when deemed appropriate.

Once a default occurs or a borrower requests debt relief, Freddie Mac’s workout strategy is to maximize recovery on an NPV basis. Possible workout scenarios include loan extension or forbearance, note sale, modification or foreclosure. While working out a loan, Freddie Mac considers the cooperation of the borrower and its willingness to demonstrate a financial commitment commensurate with any debt relief. Freddie Mac considers the need for an updated title policy and/or updated third-party reports (appraisal, engineering or environmental), depending on the status of the loan and potential workout.

Unlike many Fitch-rated special servicers, Freddie Mac does not have a formal credit committee responsible for review and approval of loan workouts. Individuals within Freddie Mac are responsible for workout decisions based on the company’s approval-delegation authority matrix determined by its board of directors and risk management group. Delegations of authority are reviewed quarterly.

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**Non-CMBS Special Servicing Property Type**

(As of March 31, 2018)

- Multifamily 100%

**Non-CMBS Special Servicing Geographic Distribution**

(As of March 31, 2018)

- CA 20%
- TX 10%
- FL 6%
- GA 3%
- VA 2%
- WA 4%
- NY 11%
- NJ 4%
- MD 3%
- IL 3%
- Other 34%

Source: Freddie Mac, Multifamily Division.

**Note:**

Freddie Mac’s ART Tool is used to calculate and compare NPV scenarios for various resolution strategies. Note sales are a preferred disposition strategy for assisted-living assets.
Special Servicing (Cont’d)

REO Management

When an asset is foreclosed upon, asset management responsibility transfers to the REO team from the asset resolution team. MAMOG employs a detailed REO management process designed to stabilize, position and dispose of the REO for the highest possible price.

Freddie Mac’s philosophy is to hold REO assets for less than a year, although Fitch observed that exceptions occur when properties are not stabilized. Once taking title to an asset, Freddie Mac develops a 90-day takeover plan that includes an assessment of the asset, including potential capital expenses necessary to stabilize or add value to the property. Freddie Mac makes capital expenditures to stabilize assets as necessary and has no restrictions on access to capital. Upon taking title to a property, Freddie Mac engages a third-party property manager to resolve all immediate life safety issues, secure the premises and address operational deficiencies. While a property is held by Freddie Mac, an annual operating budget is prepared by the asset manager in conjunction with the property manager. The budget is reviewed and approved by Freddie Mac.

Prior to marketing a property for sale, Freddie Mac’s policy is to engage two to three brokers to develop opinions of value. Freddie Mac evaluates the brokers’ experience, previous success with Freddie Mac, geographical focus, strategy, pricing/incentives and marketing materials prior to selecting a broker to list the asset for sale. While Freddie Mac’s goal is to sell assets at the highest possible price, it is sensitive to selling assets to qualified buyers and avoiding and/or mitigating potential headline risk.

Note:

Freddie Mac’s core special servicing philosophy for non-CMBS loans is to resolve loans in its best interest economically, operationally and, from a reputational perspective, with the ultimate workout strategy resulting in the highest NPV.

Note:

Fitch found Freddie Mac’s surveillance and risk-rating process to be a proactive monitoring tool, and the company’s early intervention with borrowers effective in mitigating losses and shortening workout negotiations.
Managing Conflicts of Interest

Potential conflicts of interest in special servicing arise through various forms, particularly as investors retaining controlling positions in securitizations or specific loans have influence on workout strategies and the ability to select the special servicer.

Freddie Mac may act as master or special servicer in transactions in which it is also the guarantor in limited instances. In the ordinary course of its K-series and small balance securitizations, Freddie Mac does not purchase B pieces, although it may do so in specialized transactions. The company is the named special servicer for two transactions for which it owns the controlling class position, as well as other bonds within the transaction that are consolidated onto the company’s balance sheet. Freddie Mac does not have specific policies for securitized transactions or where potential conflicts of interest exist, although Fitch noted the separation of special servicing and asset management functions from investments as a mitigating factor.

Freddie Mac’s employees are subject to its code of conduct, which contains specific policies addressing conflicts of interest and business ethics relating to the company’s business lines. Furthermore, employees are required to attend annual compliance training and certify their understanding and compliance with the employee code of conduct. Fitch found the code of conduct for employees to be complete, addressing the disclosure of material, nonpublic information, data firewalls, business relationships, information disclosure with vendors, confidentiality and fair-dealing practices.

Fitch reviewed six business plans for defaulted loans and REO properties to assess timeliness, completeness and consistency with Freddie Mac’s stated policies and procedures. Fitch found the plans thorough and complete, containing an analysis of the loan, property, borrower, market and circumstances surrounding the default. The plans presented a clear rationale for proposed resolution and, where applicable, an NPV analysis of alternative resolutions.

Affiliated Companies

Freddie Mac does not have any affiliated companies that provide real estate management or broker services. Freddie Mac also does not provide debt refinancing directly to borrowers, but a non-affiliated Freddie Mac seller/servicer may provide commercial real estate financing options to maturing CMBS loans.
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