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## Servicer Evaluation: Berkadia Commercial Mortgage LLC

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# Servicer Evaluation: Berkadia Commercial Mortgage LLC

## Ranking Overview

Servicing category	Overall ranking	Subrankings		
		Management and organization	Loan administration	Outlook
Commercial primary	STRONG	STRONG	STRONG	Stable
Commercial master	ABOVE AVERAGE	STRONG	ABOVE AVERAGE	Stable
Commercial special	ABOVE AVERAGE	ABOVE AVERAGE	ABOVE AVERAGE	Stable
<b>Financial position</b>				
SUFFICIENT				

## Rationale

S&P Global Ratings' rankings on Berkadia Commercial Mortgage LLC (Berkadia) are STRONG as a commercial mortgage primary servicer and ABOVE AVERAGE as a commercial mortgage master and special servicer. On Nov. 20, 2018, we affirmed our primary and special servicer rankings and lowered our master servicer ranking on Berkadia (see "Two Berkadia Commercial Mortgage LLC Rankings Affirmed And One Lowered; Outlooks Stable," published Nov. 20, 2018"). The outlooks for all three rankings are stable.

Our rankings reflect Berkadia's:

- Experienced and tenured senior management team;
- Comprehensive and well-defined training program;
- Strong audit and quality control (QC) environment;
- Proactive, well-documented compliance/governance and internal controls;
- Efficient use of technology systems and offshoring operations;
- Demonstrated track record, with a diverse geographic presence, diverse constituency of investor and property types, and strong commitment to primary servicing; and
- Continued low levels of special servicing and declining subservicer oversight volume as a master servicer.

Since our prior review (see "Servicer Evaluation: Berkadia Commercial Mortgage LLC," published Aug. 31, 2017) the following changes or developments have occurred:

- The executive responsible for the overall management of the Hyderabad location, including servicing operations in India, left the company in early 2018. A "Senior Council" of four experienced executives absorbed his overall responsibilities to lead the Hyderabad platform.
- An onshore executive with responsibility for loan administration left the firm and was replaced by a long-tenured onshore manager promoted to Senior Vice President (SVP) – Loan Administration.

- The SVP responsible for correspondent life insurance company loans retired and was replaced by one of her direct reports, who was promoted to SVP and also assumed functional responsibilities for insurance administration across the servicing platform.
- The company hired a senior vice president to lead strategic initiatives, including a companywide technology and process-improvement initiative.
- The number of primary/master serviced loans declined by approximately 14%, although overall unpaid principal balance (UPB) declined only 2%. Overall staffing levels declined nearly 6% to a total servicing full-time employee count of 578, with 69% of staff located offshore.
- Berkadia was named BPO Organization of the Year (an outsourcing award) for the third consecutive year by CMO Asia.
- Berkadia continued to introduce innovative training programs to enhance staff development and advancement opportunities.
- Significant additional run-off in the master servicing serviced-by-others (SBO) portfolio occurred.

Our outlook for all three rankings is stable. Berkadia has a long and successful track record as a primary and master servicer of commercial and multifamily mortgage loans. It has a diverse portfolio in terms of investor type and asset mix, both by geography and property type. Furthermore, Berkadia has demonstrated its ability to meet multiple reporting requirements for CMBS, government-sponsored enterprises (GSEs), life insurance companies, and other third parties for many years. Berkadia's primary servicing growth plans and strategic objectives are reasonable, and it has consistently demonstrated a commitment to investing in technology resources and process improvement.

In addition to conducting an on-site meeting with servicing management, our review includes current and historical Servicer Evaluation Analytical Methodology data through June 30, 2018, as well as other supporting documentation provided by the company.

## Profile

Servicer Profile	
Servicer	Berkadia Commercial Mortgage LLC
Primary servicing locations	Ambler, Pa. and Hyderabad, India
Parent holding companies	Berkshire Hathaway Inc. and Jefferies Financial Group Inc.
Servicer affiliates	Berkadia Services India Private Ltd., Berkadia Commercial Mortgage Inc., Berkadia Capital Markets LLC, and Berkadia Real Estate Advisors Inc.
Loan servicing system	Strategy v.17.6

Berkadia is a commercial real estate services company with integrated lines of business, including commercial loan servicing, mortgage banking, and investment sales. The company was formed in September 2009 as a joint venture between Berkshire Hathaway Inc. and Leucadia National Corp. (now known as Jefferies Financial Group Inc.), which acquired the U.S. servicing and mortgage banking operations of Capmark Financial Group (Capmark) as part of Capmark's December 2009 bankruptcy reorganization. In 2017, Berkadia, which is the largest private originator of commercial mortgage loans in the U.S., originated \$24.5 billion in GSE, institutional, CMBS, and proprietary

mortgages. In 2017, Berkadia was the largest HUD lender, the second-largest Freddie Mac lender, and the second-largest Fannie Mae lender. In addition, in 2017, the investment sales division completed 478 transactions that totaled \$7.8 billion in volume.

In the U.S., primary and master servicing operations are mainly conducted in Ambler, Pa., with additional offices located in Tempe, Ariz.; Midvale, Utah; St. Louis; and New York. However, a significant portion of the firm's servicing employees and back-office operations are based in Hyderabad and conducted through Berkadia Services India Private Ltd. (BSI). The special servicing staff size is modest and operates out of Irvine, Calif. and Ambler, Pa.

Berkadia has been a market leader in leveraging its technology infrastructure and the cost advantages of offshore operations, allowing it to become a "servicer's servicer," providing servicers with both borrower-facing and non-borrower-facing outsourcing support. Its fee-for-service loan portfolio represents \$115.6 billion of its \$216.1 billion primary/master servicing portfolio as of June 30, 2018.

The company's 2018 initiatives include continuous innovation and focus on efficiency gains in conjunction with providing high-quality customer service. Specific initiatives are underway to leverage machine learning, robotic process automation, and optical character recognition to speed up turnaround times and heighten accuracy. The company's longer-term plans include building a single cloud-based database across the platform to improve processing times and access to data.

**Table 1**

<b>Total Servicing Portfolio</b>						
	<b>UPB (mil. \$)</b>	<b>YOY change (%)</b>	<b>No. of assets (i)</b>	<b>YOY change (%)</b>	<b>No. of staff</b>	<b>YOY change (%)</b>
<b>Primary/master servicing</b>						
June 30, 2018(ii)	216,107.9	6.8	15,544	2.9	572	(0.3)
Dec. 31, 2017	202,309.3	(8.3)	15,109	(16.5)	574	(6.2)
Dec. 31, 2016	220,642.4	(1.5)	18,086	(9.8)	612	(12.9)
Dec. 31, 2015	224,025.0	(4.8)	20,059	(12.1)	703	(5.9)
Dec. 31, 2014	235,341.9	--	22,829	--	747	--
<b>Special servicing</b>						
June 30, 2018 (ii)	62.6	(12.7)	21	31.3	6	0.0
Dec. 31, 2017	71.7	33.6	16	(54.3)	6	(14.3)
Dec. 31, 2016	53.7	500.5	35	59.1	7	0.0
Dec. 31, 2015	8.9	232.7	22	29.4	7	16.7
Dec. 31, 2014	2.7	--	17	--	6	--

(i)The June 30, 2018, data exclude 1,541 loans for which Berkadia performs limited servicing (does not include cashiering) within the client's system. (ii)June 30, 2018, YOY change, based on prior year end. YOY--Year-over-year. UPB--Unpaid principal balance.

**Table 2**

<b>Portfolio Overview</b>										
	<b>June, 30 2018</b>		<b>Dec. 31, 2017</b>		<b>Dec. 31, 2016</b>		<b>Dec. 31, 2015</b>		<b>Dec. 31, 2014</b>	
	<b>UPB (mil. \$)</b>	<b>No.</b>	<b>UPB (mil. \$)</b>	<b>No.</b>	<b>UPB (mil. \$)</b>	<b>No.</b>	<b>UPB (mil. \$)</b>	<b>No.</b>	<b>UPB (mil. \$)</b>	<b>No.</b>
Primary loans	215,419.8	15,464	201,584.0	15,017	217,710.3	17,840	219,446.7	19,658	229,325.3	22,204

**Table 2**

Portfolio Overview (cont.)										
	June, 30 2018		Dec. 31, 2017		Dec. 31, 2016		Dec. 31, 2015		Dec. 31, 2014	
	UPB (mil. \$)	No.	UPB (mil. \$)	No.	UPB (mil. \$)	No.	UPB (mil. \$)	No.	UPB (mil. \$)	No.
Master (SBO) loans	688.2	80	725.4	92	2,932.1	246	4,578.3	401	6,016.6	625
Total servicing	216,107.9	15,544	202,309.3	15,109	220,642.4	18,086	224,025.0	20,059	235,341.9	22,829
Average loan size	13.9	--	13.4	--	12.2	--	11.2	--	10.3	--
<b>Special servicing</b>										
Loans	62.5	20	71.6	15	53.0	33	8.1	19	2.7	17
REO properties	0.1	1	0.1	1	0.6	2	0.9	3	0.0	-
Total special servicing	62.6	21	71.7	16	53.7	35	8.9	22	2.7	17

SBO--Serviced by others. REO--Real estate owned. UPB--Unpaid principal balance.

**Table 3**

Primary/Master Portfolio Breakdown By Property Type And State(i)				
Type	UPB (mil. \$)	UPB (%)	No. of properties	Properties (%)
Multifamily	105,399.1	48.8	9,826	35.9
Office	32,051.3	14.8	1,106	4.0
Retail	29,650.7	13.7	2,224	8.1
Other/various	10,853.5	5.0	8,522	31.1
Mixed use	8,592.7	4.0	1,708	6.2
All other	29,560.6	13.7	4,017	14.7
Total	216,107.9	100.0	27,403	100.0
<b>State</b>				
CA	35,249.1	16.3	3,424	12.5
NY	24,231.7	11.2	1,287	4.7
TX	21,188.5	9.8	2,403	8.8
FL	17,778.4	8.2	2,162	7.9
IL	9,542.0	4.4	1,144	4.2
All other	108,118.3	50.0	16,983	62.0
Total	216,107.9	100.0	27,403	100.0

(i)As of June 30, 2018. UPB--Unpaid principal balance.

**Table 4**

Primary/Master Portfolio By Investor Product Type(i)				
Loan Type	UPB (mil. \$)	UPB (%)	Loan count	Loan (%)
Other third-party investors (REITs, investment funds, etc.)	115,617.4	53.5	7,265	46.7
Freddie Mac K-Series	30,420.9	14.1	1,676	10.8
Fannie Mae	24,798.9	11.5	1,504	9.7
Life insurance companies	13,264.3	6.1	1,374	8.8
CMBS/CDO/ABS	12,774.7	5.9	1,627	10.5

**Table 4**

<b>Primary/Master Portfolio By Investor Product Type(i) (cont.)</b>				
<b>Loan Type</b>	<b>UPB (mil. \$)</b>	<b>UPB (%)</b>	<b>Loan count</b>	<b>Loan (%)</b>
FHA and Ginnie Mae	10,052.4	4.7	1,498	9.6
Freddie Mac (excluding "K-Series" deals)	5,154.4	2.4	367	2.4
On own or parent's balance sheet	2,247.2	1.0	160	1.0
Banks/financial institutions	1,777.7	0.8	73	0.5
Total	216,107.9	100.0	15,544	100.0

(i)As of June 30, 2018 UPB--Unpaid principal balance. REITs--Real estate investment trusts. CMBS--Commercial mortgage-backed securities. CDO--Collateralized debt obligations. ABS--Asset-backed securities.

## Management And Organization

The management and organization subrankings are STRONG for primary and master servicing. We based these subrankings on our view of the company's long, successful track record servicing multifamily/commercial real estate loans, and its experienced management team, good leverage of technology, and sound audit and control environment.

The management and organization subranking for special servicing is ABOVE AVERAGE. We based this subranking on our view of the servicer's good leverage of technology, adequate control environment, and strong training program. The modest staffing and uncertain future growth plans of the special servicing platform are key distinguishing factors that place the special servicing management and organization subranking one notch below that of primary and master servicing.

### Organizational structure, staff, and turnover

Berkadia's management team and staff demonstrate solid levels of industry experience and tenure, although senior management experience and tenure are somewhat below its STRONG-ranked peers (see table 5). Turnover levels are generally within industry norms, which we consider favorably.

**Table 5**

	<b>Senior managers</b>		<b>Middle managers</b>		<b>Asset managers</b>		<b>Staff</b>	
	<b>Industry experience</b>	<b>Company tenure</b>	<b>Industry experience</b>	<b>Company tenure</b>	<b>Industry experience</b>	<b>Company tenure</b>	<b>Industry experience</b>	<b>Company tenure</b>
Primary	24	16	23	16	N/A	N/A	9	7
Master	19	9	11	11	N/A	N/A	7	6
Special	N/A	N/A	29	21	21	14	24	15
India	16	12	13	12	N/A	N/A	6	5

(i)As of June 30, 2018. N/A--Not applicable.

The president of the servicing group has 31 years of industry experience, all with Berkadia (including its predecessors), and has six SVP direct reports, who average more than 24 years of industry experience and more than 12 years of tenure at Berkadia. These SVPs oversee:

- Client services. This SVP is responsible for management and oversight of the client relations function, including

client relations, loan boarding, special requests, special servicing, and the servicing data centers teams globally. Client services responsibilities pertain to all portfolios other than the correspondent life insurance company relationships.

- Loan administration. This SVP is responsible for all aspects of loan administration outside the correspondent life insurance company portfolios, including cash management, payment processing, bank reconciliations, financial statement analytics, escrow administration, reserves, Uniform Commercial Code (UCC) administration, taxes, collateral administration, and surveillance.
- Hyderabad servicing operations. The India-based SVP oversees servicing operating functions performed in Hyderabad, including personnel who have functional responsibilities for new loan boarding, cash operations, servicing accounting/reporting, and servicing operations.
- Life insurance company portfolios. This SVP is responsible for all aspects of servicing for correspondent life insurance company investor portfolios. The SVP who leads this area is also responsible for insurance administration across all portfolios.
- Business development. This SVP handles investor relations and new business development.
- Strategic initiatives. This SVP is responsible for strategic initiatives, including operational efficiency opportunities.

In addition, the organization is structured so that primary and master servicing employees have parallel reporting to functional managers in the U.S. and India, aligning the goals and interests of the Hyderabad staff with their Ambler counterparts.

Since our last review, the senior manager with responsibility for servicing operations in India and overall management of the Hyderabad location left the company. A Senior Council of four experienced executives (including the India SVP) absorbed his overall responsibilities to lead the Hyderabad platform. The Senior Council also includes an experienced and tenured executive who serves as the site director. He is responsible for human resources, administration and facilities, and development and advancement.

Since the company established BSI 16 years ago, it has continually migrated specific loan servicing processes to the Hyderabad office. These processes encompass all servicing functions, including loan administration, collateral and asset management, cash management, and client services. In addition, management places an emphasis on cross-training. Servicing processes, and the percentage of personnel associated with each process that is located in Hyderabad include:

- Loan boarding/servicing data center (74%),
- Document imaging and workflow (97%),
- Cash administration/bank reconciliations (76%),
- Loan administration (79%),
- Investor reporting/payoffs (73%),
- UCC administration (67%),
- Credit administration (77%),

- Surveillance (73%),
- Financial statements/inspections (94%),
- Client relations support (100%), and
- Client relations that include vocal communications (8%).

With regard to the offshore client relations that include vocal communications noted above, some personnel that work with smaller-sized loans maintain full client relations responsibilities. While offshore client-facing employees are unusual in the servicing industry, the migration of these client relations functions offshore represents the continued evolution and maturity of the Hyderabad operations. We will monitor any further meaningful evolution of client-facing activities that move offshore.

Of the 572 total employees that make up the primary/master servicing operations, which is a 6.5% decline in headcount since our last review, 401 are India-based. Although India servicing full-time equivalents (FTE) have declined 3.6% since our last review, they now represent 70% of the servicing headcount compared with 68% as of Dec. 31, 2016. The special servicing team has six employees--down one from our last review--who are based onshore (Irvine, Calif. and Ambler, Pa.).

By our measurement, the 7.8% overall primary/master servicing employee turnover rate during the first half of 2018 was largely consistent with the 15.1% full-year 2017 level and within historical industry norms--albeit at the high end of its peer group. The special servicing group experienced one departure from its relatively small staff during the first half of 2017, but none during the subsequent 12-month period.

By management's measurement, Berkadia achieved a controllable turnover level (i.e., employee departures for anything other than family reasons or returning to school) in Hyderabad of 4.1% during the first half of 2018 and 7% during 2017. The trailing 12-month controllable turnover rate in Hyderabad is 8%. These metrics are well-below its 12.0% annual goal and indicative of an effective BSI employee retention program.

## **Training**

Berkadia maintains a strong commitment to training and professional development, and it has a comprehensive and well-defined training program. Highlights of Berkadia's training program include the following:

- A career development program is administered by the HR department, facilitating the relationship between career development, achievements, and compensation.
- The Development and Advancement (DnA) platform provides learning and development opportunities for all employees. In partnership with each business unit, DnA endeavors to deliver educational opportunities and programs that inspire innovation and drive performance across the organization. The DnA platform team consists of core members in both Hyderabad and the U.S., along with subject-matter experts. DnA has been established for three reasons: to grow and advance the Relentless Employee Development (RED) program described below, to shape and expand Berkadia University (described below), and to create and promote other top-quality development programs that are aligned with business needs.
- RED fosters a learning culture that embraces forward-looking development through feedback, coaching, and related confidence. Training programs and workshops, which are supported by managers and work opportunities, facilitate



the achievement of competence in these areas.

- Berkadia University (BU), which provides employees access to over 4,000 training topics, supports employee learning and development. BU is housed in a talent management system (LMS) that tracks training and prints certificates and transcripts. BU is overseen by the DnA program manager and is supported by the training team in Hyderabad.
- Minimum training targets consider combined tenure at the company and prior industry experience; targets differ by country location. U.S.-based employees' annual minimum training requirements range from 15 hours for employees with at least 15 years of industry experience, to 50 hours for those with three or less years of experience. India-based employees' minimum training requirements range from 30 hours for employees with nine or more years of experience to 50 hours for those with three or less years of experience.
- During the first half of 2018, employees averaged 26 hours of training globally, with Hyderabad and U.S. employees both averaging 26 hours. In 2017, employees averaged 65 hours of training globally, with Hyderabad and U.S. employees averaging 72 and 47 hours, respectively, which is considerably above most servicers we rank.
- Berkadia requires all employees to take yearly training courses in prohibited harassment, policies and procedures, antifraud, phishing, legal, and its Comprehensive Information Security Policy.
- Berkadia personnel regularly participate in panels and conferences covering a wide range of commercial mortgage-related topics.
- Senior managers, subject-matter experts, and trainers frequently travel to Hyderabad to facilitate and enhance the educational offerings. There were 57 completed trips during the first half of 2018, and 128 completed trips in 2017.

## **Systems and technology**

Berkadia has well-integrated and efficient technology for its servicing requirements, and it operates with a high degree of system automation using an integrated array of applications. Its data warehouse is integrated with its application service provider (ASP)-hosted mortgage loan accounting and servicing system, special servicing system, and investor reporting and borrower website portals. Key elements of its systems and applications, business continuity (BC) and disaster recovery (DR) programs and security environment are discussed below.

### ***Systems and applications***

Berkadia's technology infrastructure includes the following systems and support:

- McCracken Financial Solutions Corp.'s (McCracken) Strategy (v.17.6) is the system of record for primary/master servicing. McCracken is subject to a Service Auditors' examination (SOC-1) performed by an independent CPA firm.
- Asset Surveillance (ASUR) 2.0 is a proprietary system used to track financial statement analysis, property inspections, and rent roll analysis. ASUR also includes a module that stores servicing agreement requirements for collecting, analyzing, and distributing operating statements and inspections.
- Enterprise Productivity Management Suite (EPM) is a proprietary document imaging system for deal and loan documents. EPM hosts several servicing workflows, including an electronic queuing system that facilitates internal approval of fund movements, while also providing an audit trail of all funds moved.
- SmartView, which produces over 2,000 customized operational and management reports for both internal and external users, combines data warehouse and business intelligence tools.

- SmartTrack 2.0, a version of Salesforce.com's cloud-based customer service software, tracks tasks, processes requests, and refers inquiries across various teams.
- CertInView is a proprietary tool for monitoring insurance compliance that includes an automated process of generating expiration and noncompliance letters.
- AIMS, a proprietary application for special servicing, connects other internal systems and also has a reporting subsystem. It has modules for pooling and servicing agreement (PSA)-driven compliance, business plans, subcontracting service requests and administration, and assumptions and consent requests.
- Berkadia's intranet provides employees with access to policies and procedures, employee benefits, and organizational announcements. It is linked to BU, which communicates available training sessions, stores course content, and tracks completed training credits.
- Investor Query, an internally developed web portal, provides investors, rating agencies, and other interested parties with access to portfolio and loan-level reporting.
- Loan View 2.0, a borrower website that offers a chat feature with client service representatives, provides access to loan level information, related documents, and electronic billing, online bill payment, and loan alerts to credentialed users.

#### ***Business continuity and disaster recovery***

Berkadia operates with sound data backup protocols, as well as comprehensive DR and BC programs. Highlights include:

- Data is backed up to magnetic tape or off-site servers on an approved schedule utilizing automated job scheduling software. The production servers' backup tapes are stored at an off-site facility, and IT performs an annual inventory.
- All critical system DR and BC plans are tested annually. In addition, the DR and BC plans are reviewed, approved, or revised annually by a BC committee.
- Berkadia's primary U.S. data center is outsourced to TierPoint, a tier 4 equipped and tier 3 certified state-of-the-art facility located in Norristown, Pa. It also utilizes a 50-seat tier 4 equipped and tier 3 certified data center operated by SunGard in Philadelphia for BC and DR. This location is less than 25 miles from the main U.S. servicing center and the primary data center, and it is on the same power grid. These factors are less than ideal, based on our criteria.
- The DR/BC site in Pune, India, which has a maximum of 131 seats per shift, supports the Hyderabad office's DR requirements.
- The most recent off-site DR test was successfully completed for the Ambler site in July 2018 at the SunGard facility. A DR exercise for all critical applications was successfully conducted in December 2017, with no issues; and another test is scheduled in December 2018. The latest DR test for India was successfully conducted in Pune in July 2018.

Berkadia has a CISP that provides protection against unauthorized use or disclosure of confidential information, unauthorized access to personally identifiable information (PII), and threats that could compromise the integrity or accuracy of information. A CISP committee, comprising representatives from legal, human resources, IT, vendor management, and the servicing and production business units, regularly reviews current industry information security policies and makes recommendations to senior management as security policies require updating.

### ***Cybersecurity***

With respect to cybersecurity, intrusion detection systems are configured to continually monitor Berkadia's network and identify potential security breaches early. Penetration tests are conducted annually by an external party, and they focus on physical building security, user identification, and password protection. Additionally, Berkadia performs monthly phishing awareness campaigns (which we have observed is more frequent than its peers'), with higher risk employees being targeted more frequently. The company also maintains a stand-alone cyber-insurance policy.

Berkadia also utilizes data loss prevention technology that recognizes, captures, and reports inappropriate transmission of sensitive information, as well as removes access to external email accounts from the Berkadia network.

A thin-client computing environment has been implemented and maintained at the Hyderabad facility. As such, procedures have been implemented to prevent portable devices from accessing information, information from being removed or disclosed via portable devices, and unapproved software or malware from removable devices from being installed.

### **Internal controls**

Berkadia maintains strong internal controls that include extensive and well-documented policies and procedures, internal and external audits and a QC environment that includes proactive, well-documented compliance. The audit program includes internal staff, external auditor, client, and investor reviews.

### ***Policies and procedures***

Berkadia has an extensive, well-documented, and well-maintained library of procedures for all servicing operations.

- The procedures incorporate the step-by-step operations and provide relevant forms and definitions for each activity. Policies and procedures may also incorporate specific guidelines issued by partnering servicers.
- The procedures are online and updated regularly, as required by process, system, or regulatory changes.
- Changes are conveyed to employees with appropriate training and follow-up QC and compliance reviews.

### ***Internal and external audits***

The audit regime is robust. Highlights include:

- Berkadia's internal audit department independently reports to the audit committee and board of managers. Internal audits are geared toward all servicing and special servicing compliance requirements, operational controls, and testing.
- The department designs and performs an annual audit plan, which is approved by the audit committee, based on a risk assessment model. Segments are scored on qualitative and quantitative characteristics. The plan details audit coverage provided by internal audit, outside auditors, regulators, and the company's public accountants.
- In 2017, the Uniform Single Attestation Program and Regulation AB audits were performed by an independent external auditing firm across the servicing platforms with no reported findings.
- A major public accounting firm performed Statement on Standards for Attestation Engagements (SSAE) No. 16 reviews (Service Organization Control [SOC] 1 and SOC 2 design and test of controls) in 2017. The SOC 1 report

examines Berkadia's commercial mortgage servicing operations and related general computer controls. The SOC 2 platform review covers data security, operational availability, processing integrity, and information confidentiality. There were no reported findings in either report. Management also reported that no material exceptions have been noted since SOC 1 and SOC 2 audits have been performed, starting in 2011 and 2014, respectively.

- We reviewed summary reports of recent servicing-related internal audits associated with servicing insurance and bank administration and departmental disbursements. The auditors for each report concluded that Berkadia has a satisfactory control environment. We further reviewed a 2017 internal audit report of the operations of BSI prepared by a major international accounting firm. There were no findings associated with the scope of the review that pertained to finance and accounts, including compliance with service level agreements.

### ***Compliance and quality control***

In addition to formal audits, Berkadia employs QC processes, including measuring performance against departmental standard turnaround times and monitoring productivity results and accuracy of various servicing tasks. Metrics and performance reports are reviewed daily and weekly by appropriate levels of management, and action is taken as necessary.

### **Vendor management**

Berkadia's Risk, Control, and Compliance (RCC) group reviews and identifies high risk vendors annually. The threat analysis evaluates the level of access vendors have to company data and PII. For those deemed to be of high risk, RCC verifies that those vendors have implemented reasonable controls over their processes. The assessment includes a review of financial, operational, and compliance environments to ensure the third party meets, and can continue to meet, the terms of the contractual arrangement and company standards. After review of the information provided and, if applicable, any available public information, vendors' are provided internal status ratings of Pass, Monitor, or Fail.

Vendor contracting is handled centrally for portfolio-wide operations (including UCC filings and tax service) and through asset managers with appropriate oversight and approval for asset-specific services (including property management, appraisal, and brokerage). Centralized vendor lists are maintained on Berkadia's asset management system, and the company prepares an annual vendor compliance report to determine if its vendors continue to meet the terms of their contractual arrangements. A subcontracting manager tracks engagements through the system's automated requests for service, competitive bidding (if applicable), issuance of standard contracts, and final completion of service.

### **Insurance and legal proceedings**

Berkadia has represented that it maintains adequate directors and officers, as well as errors and omissions insurance coverage, given the size of its servicing portfolio. As of June 30, 2018, Berkadia reported no outstanding defensive lawsuits.

## **Loan Administration--Primary Servicing**

The loan administration subranking is STRONG for primary servicing.

Berkadia's primary loan administration area has individual client relationship managers assigned to each loan.

Multifamily is the emphasis (49% of UPB and 36% of property count), although the portfolio contains a varied geographic mix and all types of collateral properties (see table 3), including those with complex loan structures. Berkadia's significant use of offshoring allows for greater headcount and offers leverage to enhanced controls, allowing for more scrutiny and reviews of servicing data and reports.

As of June 30, 2018, the \$216 billion (including master servicing) portfolio was broadly distributed (see table 4) across third-party investor clients (53%; including a number of private-label relationships and a CMBS-focused fee-for-service relationship). The next largest investor client type is Freddie Mac K-Series (14%), followed by Fannie Mae (11%). Life insurance companies (6%) and CMBS (6%) round out the top five investor types. While unit loan volume has steadily declined in recent years, portfolio dollar volume has benefited from a steady increase in average loan size added to the platform in recent years (\$13.9 million as of June 30, 2018, versus \$10.3 million as of Dec. 31, 2014). Nonetheless, since our last review, the primary servicing portfolio's UPB has declined by 1% since Dec. 31, 2016. At the same time, delinquency rates (see table 6) have benefited from favorable market conditions and a portfolio shift away from CMBS (which have experienced higher delinquency rates) since our last review (0.01% as of June 30, 2018, compared with 0.9% as of Dec. 31, 2016).

**Table 6**

Primary Servicing Portfolio										
	June 30, 2018		Dec. 31, 2017		Dec. 31, 2016		Dec. 31, 2015		Dec. 31, 2014	
	UPB (mil. \$)	No.	UPB (mil. \$)	No.	UPB (mil. \$)	No.	UPB (mil. \$)	No.	UPB (mil. \$)	No.
Primary loans	215,419.8	15,464	201,584.0	15,017	217,710.3	17,840	219,446.7	19,658	229,325.3	22,204
Average loan size	13.9	--	13.4	--	12.2	--	11.2	--	10.3	--
<b>Delinquent (%)</b>										
30 days	0.00	--	0.22	--	0.25	--	0.25	--	0.44	--
60 days	0.00	--	0.09	--	0.05	--	0.11	--	0.08	--
90+ days	0.01	--	0.45	--	0.60	--	0.75	--	1.16	--
Total	0.01	--	0.75	--	0.90	--	1.10	--	1.69	--

UPB--Unpaid principal balance.

### New loan boarding

Based on its stated practices and written procedures, Berkadia has a sound loan boarding function that includes in-depth procedures for secondary review. It boarded 1,452 loans during the first half of 2018. Control and other features of new loan boarding include:

- For newly originated loans, a manual process that includes the input of loan and borrower information relevant to the application of payments and general loan-level data comprises phase I of loan boarding. This information is necessary to pass a file into Strategy. Phase II of loan boarding includes loading additional elements of the loan, including property-level information for collateral and loan administration. Documented procedures for loan boarding exist for other loan types that vary depending on the investor type/scope of service.
- Loans are boarded into Strategy before the first investor remittance date and should be boarded no more than 10 days following closing. For acquired loans, the new loan boarding department performs a tape-to-tape record transfer from the prior servicer or manually loads prior servicer information from a data tape into the system. Loan boarding requires a secondary review in the U.S. for control and validation.

- A phase I and II QC review is performed by the loan boarding department the next day, as well as 30 and 60 days, respectively, after the loan has been boarded into Strategy. Discrepancies found during the QC review are communicated to analysts for correction.
- Imaging and workflow applications aid in the boarding process, and PSA abstracts are incorporated in the servicing system. Welcome letters are primarily system-generated and sent to the borrower within three days of closing.
- Formal tracking and pursuit of missing documents is performed, and Berkadia reported no trailing documents outstanding on loans boarded more than six months prior.
- Loan boarding personnel are located in Hyderabad and in the U.S., and the Hyderabad setup staff performs initial data scrubbing and generates deficiency reports from the servicing system.
- The U.S.-based team manages the entire loan boarding process in certain cases, including loans with special issues, loans with complex waterfalls, and loans returned from special servicers.
- A detailed monthly tracking report is produced for senior management, covering volumes, timeliness, and information accuracy. Discrepancies are monitored to indicate system or performance enhancement issues.

### **Payment processing**

Payment processing is handled by a separate team in a highly automated process with appropriate segregation of duties. The protocols below indicate sound internal controls over payment posting and reconciliation:

- All payments are processed electronically with 56% received via Automated Clearing House, 21% via lockbox, and 23% via wire transfers.
- To maximize efficiency, Berkadia uses two third-party lockbox processing platforms, from which the data are downloaded to the servicing system.
- The servicer handles 2,373 adjustable-rate loans and performs regular adjustable-rate mortgage audits to ensure correct rate indices and changes.
- The servicing system automatically transfers funds daily between payment clearing and investor custodial accounts.
- No unidentified items aged more than two days were reported in the clearing account and no aged suspense items existed as of the reporting date other than those pertaining to specially serviced loans.
- The general ledger is interfaced with the servicing system.

### **Investor reporting**

Berkadia maintains efficient and effective investor reporting, remitting, and accounting processes with appropriate internal controls, and the company has experience with CMBS, life insurance company, GSE, and a variety of third-party investor clients. Separate staff members handle the bank account reconciliation, remittance, and investor reporting processes to maintain a proper segregation of duties. Additionally:

- Investor reporting and accounting analysts are assigned workloads according to investor or trustee/deal relationship.
- All third-party reporting is handled electronically.
- The servicing system is integrated with external banking software to facilitate outgoing investor wires and automatically reconciles custodial balances.

- Disbursement and clearing account reconciliations are performed daily. As of our latest review, there were no unreconciled items within the investor custodial accounts and no instances of late reporting or remitting.

### **Escrow administration**

Berkadia maintains efficient and well-controlled escrow administration functions that use a high level of automation.

Features of escrow administration include:

- Berkadia significantly leverages its operation in Hyderabad for various escrow administration functions, including vendor and borrower contacts for taxes, escrow reserves, and draw requests. Hyderabad's night shift works concurrent hours with the U.S. staff and vendors during U.S. business hours. Approximately 50% of the total portfolio is escrowed for taxes and 39% for insurance.
- A third-party vendor processes taxes on escrowed loans. For non-escrowed loans, the third-party vendor performs tax searches and reports unpaid taxes to Berkadia, which contacts the borrower via letter to request the payment. If the taxes remain unpaid, Berkadia may advance payments on the borrower's behalf after receiving any required investor/authorized party approvals. It reported a minimal amount of non-reimbursable tax penalties paid.
- Berkadia uses CertInView, a proprietary in-house insurance tracking solution and risk mitigation tool, for monitoring and noncompliance reporting. The tool provides review consistency, eliminating document and requirement interpretation.
- Renewal notices are sent 30 days prior to expiration and carrier ratings are reviewed annually for compliance.
- Forced-placed coverage has a 120-day look-back period. There were 45 loans on forced-placed coverage as of June 30, 2018, compared with 96 loans as of our prior review.

### **Asset and portfolio administration**

Separate areas within loan administration handle the collections and financial statement spreads (with support from BSI) and the scheduling of property site inspections. Overall, procedures for these functions are properly managed with effective automation tools. Other features include:

- The servicing system and workflow application track open items.
- As of June 30, 2018, Berkadia received 100% of 2017 annual CMBS property operating statements and had analyzed 99% of annual statements.
- Third-party vendors conduct most of the site inspections, which occur annually for loans over \$2 million in UPB and biannually for all others.
- Deferred maintenance (DM) open items are centrally tracked, and resulting DM notices are issued to borrowers as needed following inspection review.

Portfolio surveillance is handled through the loan administration department, encompassing teams of asset managers aligned by investor and assigned to specific loan pools. Surveillance analysts serve as the point of contact for trustees, bondholders, and rating agencies. Other surveillance features include:

- Asset managers review advances for principal and interest and for property protection, maintain watchlists, and monitor specially serviced loans.
- In addition to the standard Commercial Real Estate Finance Council watchlist, Berkadia maintains other specific

client-driven watchlists. Automated logic places loans on the watchlist for deficient financials, low occupancy levels, and negative inspection reports. As of June 30, 2018, there were 1,588 loans on the watchlist.

- The surveillance team reviews each transaction's performance monthly, with a focus on problem loans, 30-day delinquencies, special serviced loans, and advancing needs and recoverability.
- Analysts also prepare bond impact analyses associated with delinquencies and advancing to estimate bond interest shortfalls, proactively communicate with rating agencies, and monitor the trustee's waterfall distributions.
- The loan administration group also facilitates other collateral monitoring requirements, such as UCCs and letters of credit. Of the approximately 13,000 loans requiring UCC filings as of June 30, 2018, none had experienced any filing lapses.

Overall, Berkadia has good controls to monitor that financial statement reviews and inspections comply with the company's policies, servicing agreements, and loan documents. Berkadia also maintains a sound portfolio surveillance function that proactively examines asset- and portfolio-level performance. Its well-detailed investor website offers deal- and loan-level performance data.

### **Borrower requests**

Berkadia has well-controlled procedures for processing borrower consent requests. Highlights include:

- The client relations manager reviews borrower requests to determine if the requested event is allowable according to the loan documents. Certain requests requiring a waiver, loan document modification, or the consent of interested parties must be underwritten or reviewed by the special request department within client services.
- A documentation requirements letter is generated and provided to the borrower upon initial review of the request. The special request analyst obtains required internal and external approvals after receiving and reviewing the borrower package.
- A closing coordinator reviews documentation received against checklists for each type of request and the documentation must also be reviewed and approved by a manager prior to sign-off and execution.
- Each request is tracked for progress. As primary/master servicer, Berkadia processed 569 consents during the first half of 2018, including 148 related to leasing activity, 101 pertaining to loan assumptions, and 32 defeasance reviews.

### **Early-stage collections**

Berkadia proactively initiates collection efforts by contacting borrowers the day after a delinquency or grace period, depending on the service agreement. Other features of the collections group include:

- Client relationship managers monitor monthly delinquency reports and call borrowers to obtain information surrounding the delinquency's cause and anticipated payment cure date.
- Comments are centrally tracked on the servicing system.
- In instances of sustained delinquency, the relationship manager will refer the loan to the assigned asset manager for follow-up.
- Default notices are generated at 30 and 45 days past due, and depending on circumstances, further actions are taken, such as demand letters, at 60 days past due. We have observed its peers issue default notices more promptly. However, the proactive borrower contact and the very low portfolio delinquency rate mitigate these looser policies.



## Loan Administration--Master Servicing

The loan administration subranking is ABOVE AVERAGE for master servicing.

Berkadia has historically demonstrated strong subservicer oversight practices and low delinquency levels. However, its portfolio has dramatically declined in recent years as loan run-off has greatly exceeded new master servicing oversight activity (see table 7). As of June 30, 2018, it monitored 10 subservicers that serviced 80 loans comprising \$688 million in UPB, compared with \$2.9 billion (246 loans) as of our last review and \$6 billion (625 loans) as of year-end 2014. Management noted that approximately half of the current SBO portfolio resides with a single subservicer. As a result, the other nine subservicers it oversees manage approximately four loans on average.

**Table 7**

Master Servicing Portfolio										
	June 30, 2018		Dec. 31, 2017		Dec. 31, 2016		Dec. 31, 2015		Dec. 31, 2014	
	UPB (mil. \$)	No.	UPB (mil. \$)	No.	UPB (mil. \$)	No.	UPB (mil. \$)	No.	UPB (mil. \$)	No.
Master (SBO) loans	688.2	80	725.4	92	2,932.1	246	4,578.3	401	6,016.6	625
Subservicers	--	10	--	12	--	17	--	18	--	21
Average loan size	8.6	--	7.9	--	11.9	--	11.4	--	9.6	--
<b>Delinquent (%)</b>										
30 days	0.00	--	0.00	--	0.00	--	0.15	--	0.43	--
60 days	0.00	--	0.00	--	0.00	--	0.00	--	0.02	--
90+ days	0.00	--	0.00	--	0.00	--	0.00	--	0.09	--
Total	0.00	--	0.00	--	0.00	--	0.15	--	0.53	--

SBO--Serviced by others. UPB--Unpaid principal balance.

### New loan boarding

Berkadia follows the same primary servicing procedures for boarding new subserviced loans on its servicing system and shadow services the loans. Because these loans are all serviced by other servicers, the setup process is essentially via electronic file downloads. Other new loan setup features include:

- The subservicing team validates data consistency between the subservicer's system data and the loan record information downloaded to Berkadia's system.
- The monthly new loan setup tracking report includes information on subserviced loans covering volumes, timeliness, and accuracy of information.
- Electronic copies of pertinent loan documents are also obtained and referenced within the imaging application.

### Subservicer accounting and reporting

Berkadia shadow-posts principal and interest loan-level activity within its SBO portfolio from electronic uploads by subservicers and reconciles each subservicer's loan remittance to match its own system records monthly. It does not require its subservicers to submit forecast remittance amounts before the actual remittance date because it closely monitors delinquencies and controls advancing through its master servicer investor reporting.

## **Subservicer oversight**

### ***Escrow administration***

Berkadia obtains subservicer quarterly certifications to ensure timely payment of real estate taxes, property insurance, reserve releases, and UCC renewals. It reviews subservicer loan-level exception reports for taxes and UCCs on quarterly basis. Subservicer insurance policy exception reports are reviewed annually. Berkadia's tax service contract includes the master servicing portfolio, so it verifies tax payments and updates its servicing systems' records.

### ***Asset and portfolio administration***

The client relations group performs monthly subservicer reviews for timeliness of remittances, watchlist items, financial statement collections and analysis, and property inspections.

Other features include:

- Berkadia monitors each property's performance by reviewing quarterly financial statement spreads, rent rolls, and inspection reports from subservicer uploads.
- Borrower requests processed by the subservicer are tracked by Berkadia's subservicer team and managed through the workflow tracking system for response.

### ***Audit and compliance***

Berkadia has adequate controls regarding subservicer compliance at its current portfolio level. Features include:

- Tracking annual compliance requirements for each subservicer under established procedures per applicable servicing agreements
- The risk control and compliance team is responsible for desktop and on-site compliance audits, which are conducted in 24-month intervals. Subservicer audits entail a detailed pre-audit questionnaire about the subservicer's operations and on-site audits cover all core servicing functions using file samplings, system reports, and staff interviews. We note, however, that no audits were performed since the first half of 2017.

## **Investor reporting, CMBS advancing, and special servicer interaction**

All reporting is accomplished via electronic file deliveries and wire transfers and combines Berkadia's subserviced portfolios with its own primary serviced loans. Proactive and conservative advance procedures are employed. Other investor reporting and advancing controls include:

- The investor reporting manager reviews the total remittances--primary plus subserviced loans--and supporting reports for accuracy, including watchlist information.
- The CMBS surveillance group monitors loan-level advances for each CMBS transaction using the asset management database for tracking advance details. As of June 30, 2018, Berkadia had CMBS advancing responsibilities on a nearly \$1.5 billion portfolio, including loans for which it is both primary and master servicer.
- A monthly advance review committee reviews delinquent loans to determine if it should continue making advances utilizing special servicer data and external market sources to determine net liquidation values. Advancing decisions are based on individual loan facts and circumstances, not a static formula. In addition to loan level reviews, advances are also reviewed for recoverability risk at the pool level.

- Analysts also prepare bond impact analyses associated with delinquencies and advancing to estimate bond interest shortfalls, proactively communicate with rating agencies, and monitor the trustee's waterfall distributions.

## Loan Administration--Special Servicing

The loan administration subranking is ABOVE AVERAGE for special servicing.

As of July 31, 2018, Berkadia is the named special servicer on 14 securitized transactions containing 554 assets approximating \$955 million in UPB. We note, however, that one of the deals is a \$525 million single-asset single-borrower transaction specially subserviced by KeyBank Real Estate Capital. Consequently, on a net basis, Berkadia is engaged on \$430 million of securitized transactions. It also performs special servicing and asset management for a small number of assets secured by both traditional and nontraditional collateral, including multifamily, skilled nursing, assisted living, hospitals, and funeral homes. Additionally, it is responsible for default management activities associated with an agency portfolio of approximately 3,400 loans totaling \$40 billion.

As of June 30, 2018, Berkadia was actively special servicing 20 loans and one real estate-owned (REO) asset, containing \$63 million in UPB (see table 8). Its special servicing team includes six staff members, including a senior asset manager (AM), a junior AM, and an asset administrator. Given the small staff size, AMs, who average 10.5 assets each, are responsible for loan workout as well as REO asset management.

**Table 8**

Special Servicing Portfolio																
	June 30, 2018			Dec. 31, 2017			Dec. 31, 2016			Dec. 31, 2015			Dec. 31, 2014			
	UPB (mil. \$)	No.	Avg. age(i)	UPB (mil. \$)	No.	Avg. age(i)	UPB (mil. \$)	No.	Avg. age(i)	UPB (mil. \$)	No.	Avg. age(i)	UPB (mil. \$)	No.	Avg. age(i)	
<b>Active inventory</b>																
Loans	62.5	20	38.2	71.6	15	43.8	53.0	33	31.0	8.1	19	40.2	2.7	17	45.7	
Real estate owned	0.1	1	41.6	0.1	1	35.6	0.6	2	23.6	0.9	3	11.6	0.0	0	0.0	
Total	62.6	21	38.4	71.7	16	43.3	53.7	35	30.6	8.9	22	36.3	2.7	17	45.7	

(i) Avg. age reflects the time in months from the date the loan first became specially serviced to the reporting date. UPB--Unpaid principal balance.

### Loan recovery and foreclosure management

Berkadia proactively handles newly transferred loans to special servicing. Features include:

- AMs complete file reviews, order property inspections, assemble market data, perform a legal analysis, and develop loan resolution plans within 90 days of transfer.
- AMs perform site visits for all loans with an UPB of \$2 million or greater as soon as possible following transfer. For assets below \$2 million, the need for an AM site visit is at the portfolio manager's discretion.
- Before any substantive borrower discussions, the AM must obtain a signed pre-negotiation agreement.
- AIMS houses all work-out plans, which include net present value scenario analysis, where applicable.

- AMs engage vendors (inspections, appraisers, environmental, engineering, etc.) through approved lists and monitor them within AIMS.
- Plans are presented to a special servicing committee for approval with levels of delegated authority. If warranted, properties are recommended for foreclosure.
- Work-out plans are updated at least every six months and implemented and monitored for adherence to plan objectives and contractual servicing requirements.

Since our last review, Berkadia has completed 25 loan resolutions with an aggregate UPB of nearly \$65 million. However, it reported only two resolutions during the first half of 2018, each a full payoff (see table 9) It has primarily achieved full payoffs (\$48.3 million UPB; 13 loans) and has also returned 10 loans with \$16 million UPB to the master servicer during the past 18 months.

**Table 9**

Total Special Servicing Portfolio--Loan Resolutions															
	2018(i)			2017			2016			2015			2014		
	UPB (mil. \$)	No.	Avg. age(ii)	UPB (mil. \$)	No.	Avg. age(ii)	UPB (mil. \$)	No.	Avg. age(ii)	UPB (mil. \$)	No.	Avg. age(ii)	UPB (mil. \$)	No.	Avg. age(ii)
<b>Resolutions</b>															
Loans	22.0	2	5.1	42.8	23	26.8	4.9	5	31.4	2.1	10	28.8	2.7	6	33.1
Foreclosed loans	0.0	--	N/A	0.0	--	N/A	0.0	--	N/A	0.0	--	N/A	14.2	1	6.4
Total	22.0	2	5.1	42.8	23	26.8	4.9	5	31.4	2.1	10	28.8	16.9	7	29.3
<b>Resolution breakdown</b>															
Returned to master	0.0	--	N/A	16.0	10	33.9	1.0	4	33.5	1.7	5	14.3	0.3	4	38.9
Full payoffs	22.0	2	5.1	26.3	11	16.3	0.0	--	N/A	0.0	1	61.2	2.5	2	21.5
DPO or note sale	0.0	--	N/A	0.5	2	48.4	3.9	1	23.0	0.4	4	38.9	0.0	--	N/A
Foreclosed loans	0.0	--	N/A	0.0	--	N/A	0.0	--	N/A	0.0	--	N/A	14.2	1	6.4
Total/average	22.0	2	5.1	42.8	23	26.8	4.9	5	31.4	2.1	10	28.8	16.9	7	29.3

(i)The data only include the first six months of the year. (ii)Avg. age reflects the time in months from the date the loan first became specially serviced to the reporting date. UPB--Unpaid principal balance. DPO--Discounted payoff. N/A--Not applicable.

Although foreclosure activity has been limited in recent years, Berkadia's foreclosure policies and procedures evidence a controlled and well-managed process. Recommended foreclosure actions initiate REO resolution plans, which include a bidding process for property management and leasing brokers. Detailed pre- and post-foreclosure checklists help ensure that all time-sensitive issues surrounding the asset, such as environmental reports and appraisals, are completed before taking title.

### REO management and dispositions

AMs monitor property managers and brokers, implement approved disposition plans, review property cash flow activity and disbursements, and negotiate lease and sale transactions for committee approval. Features include:

- Before an anticipated foreclosure action or deed-in-lieu of foreclosure, the AM identifies potential property managers and leasing brokers. Vendor selection comes from approved lists and is generally based on prior experience with firms and interviews with prospective candidates.
- AMs visit each REO property within 45 days of foreclosure and prepare a formal property business plan within the first 90 days of taking title. All REO business plans and any subsequent transaction-specific requests are presented for committee approval per an authority delegation matrix. Procedures require REO to be listed within 90 days of taking title unless a client directs otherwise. AMs interview potential brokers to list the REO asset for sale, while obtaining and reviewing proposals, which include an opinion of value, the suggested list price, commission structure, marketing outline, and timeframe.
- Sale offers must meet the parameters of the approved REO plan, or a subsequent committee reviews the alternate offer.
- AMs coordinate the closing process in conjunction with legal counsel and an asset administrator, who ensures that all documents are consistent with the approvals and update the information in the corresponding systems.

During the past several years, Berkadia experienced minimal REO sales activity (see table 10), and we do not anticipate any near-term portfolio increases.

**Table 10**

**Total Special Servicing Portfolio--Real Estate-Owned Sales**

	2018(i)			2017			2016			2015			2014		
	Amount (mil. \$)	No.	Avg. REO hold period (mos.)	Amount (mil. \$)	No.	Avg. REO hold period (mos.)	Amount (mil. \$)	No.	Avg. REO hold period (mos.)	Amount (mil. \$)	No.	Avg. REO hold period (mos.)	Amount (mil. \$)	No.	Avg. REO hold period (mos.)
Estimated market value	--	--	--	0.26	1	33.8	0.07	1	110.9	--	--	--	8.9	1	5.1
Net sales	--	--	--	0.19	--	--	0.06	--	--	--	--	--	12.3	--	--
Sale/market value (%)	--	--	--	73.0	--	--	87.5	--	--	--	--	--	137.2	--	--

(i)Data only includes the first six months of the year. REO--Real estate owned.

**REO accounting and reporting**

Berkadia has well-defined and -controlled procedures to oversee REO accounting and reporting activities:

- When a property is converted to REO, an AM immediately initiates the process to establish and maintain control of any property-generated cash that is on deposit in accounts with the receiver, property manager, or borrower.
- Servicing accounting personnel, at the direction of the AM and asset administrator, establish a property-level bank account for the existing cash and its subsequent operations. The account functions as a receipt account for rental income and is also used for disbursements for budgeted operating expenses, which require dual signatures.
- Control over REO cash and operating activity is accomplished by monitoring performance against an approved operating and capital expenditure budget, scrutiny of the monthly property reporting package and funding request, and control over the aforementioned property manager bank accounts. These controls are the joint responsibilities of the AM and a designated administrator, who coordinates cash movement and other REO bank account activities.

- The special servicing group does not directly handle cash; that responsibility resides with Berkadia's accounting department. In addition, Berkadia's finance group reviews the operating reports for the subject properties in the current portfolio.
- Property managers receive manuals for reporting guidelines and standard formats. All property managers prepare a standard financial reporting package that must be submitted electronically on or before the 10th day of each month. The operating statements and budgets are used for monitoring the property's performance and validating the bank account reconciliation.

### **Legal department**

Special servicing operations are supported by an in-house attorney. The legal division maintains a list of approved outside attorneys and uses standard engagement letters. However, the assigned asset manager must review legal invoices before payment. We believe the legal function is adequately controlled.

### **Financial Position**

The financial position is SUFFICIENT.

### **Related Criteria**

- Criteria - Structured Finance - Servicer Evaluations: Revised Criteria For Including RMBS, CMBS, And ABS Servicers On Standard & Poor's Select Servicer List, April 16, 2009
- Criteria - Structured Finance - Servicer Evaluations: Servicer Evaluation Ranking Criteria: U.S., Sept. 21, 2004

### **Related Research**

- Two Berkadia Commercial Mortgage LLC Rankings Affirmed And One Lowered; Outlooks Stable, Nov. 20, 2018
- Select Servicer List, Sep. 26, 2018
- Leucadia National Corp. 'BBB-' Ratings Affirmed On Transaction Announcement; Outlook Remains Stable, April 10, 2018
- Berkshire Hathaway, March 22, 2018
- Jefferies LLC Assigned 'A-2' Short-Term Rating, Feb. 21, 2018
- Berkshire Hathaway Inc. 'AA' Ratings Affirmed, Removed From CreditWatch Negative; Outlook Stable, Aug. 22, 2017

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