



# Multifamily Securities Investor Access User Guide

**Multifamily Securities Investor Access (MSIA)**

**Version 3.8**

**February 2, 2024**

1	Overview .....	4
2	Background.....	4
3	Application Overview.....	4
4	Minimum Browser Requirements .....	4
5	Contacting the MSIA Tool Administrator.....	4
6	Accessing MSIA.....	5
7	Website URL.....	5
8	Initial Account creation and Login.....	5
9	Forgotten Passwords .....	7
10	Application Navigation.....	7
11	Navigation Overview .....	7
12	User Profile and Password reset (after login) .....	8
13	Feedback .....	8
14	Landing Page.....	9
15	Securitized and Other Deals .....	10
16	CRT and Structured Deals Homepage .....	10
17	Quick Search .....	11
18	Advanced Search.....	11
19	IRP Date .....	11
20	Deal Reports .....	12
20.1	K-Deals .....	12
20.2	SB-Deals.....	12
20.3	ML-Deals .....	12
20.4	Multi PC Deals .....	12
20.5	MSCR-Deals .....	12
20.6	MCIP-Deals.....	12
20.7	Q-Deals.....	12
20.8	RR-Deals .....	13
20.9	P-Deals .....	13
20.10	WI-Deals .....	13
20.11	Giant PC Deals .....	13
21	Reports .....	13
21.1	Deal Summary Report.....	13
21.2	Fully loaded deals .....	13
21.3	Recently Closed Deals.....	15
21.4	Loan and Property Detail Screens.....	15
21.5	Standard Deal Reports.....	19
21.5.1	All Loans Report .....	19

21.5.2 Loan Periodic .....	19
21.5.3 Property Detail .....	20
21.5.4 Top 15 Loans .....	20
21.5.5 DSCR Stratification .....	22
21.5.6 Top 15 MSAs .....	23
21.5.7 Property Subtype .....	24
21.5.8 LTV Stratification.....	25
21.5.14 Custom Reports .....	35
21.6 Print Deal Package .....	36
21.7 Portfolio Reports .....	36
22 Building a Portfolio .....	37
22.1 Portfolio Summary Screen .....	40
22.2 Standard Portfolio Reports .....	40
22.3 Custom Portfolio Reports .....	41
22.4 Portfolio Package .....	42
23 Documents .....	42
24 Bulk Download .....	42
25 Administration .....	44
25.1 Password Reset .....	44
26 PC/Giant Deals .....	44
26.1 Navigation Overview .....	44
26.2 Quick Search .....	45
26.3 Advanced Search.....	45
26.4 PC Deal Details.....	46
26.5 Giant Deal Details .....	47
26.6 PC/Giant Portfolio Management.....	47

## 1 Overview

The purpose of this document is to provide an overview of the Multifamily Securities Investor Access (MSIA) reporting application and to provide a guide that describes how to use the application. For the remainder of the document we refer to the MSIA Tool by name or as “the application.”

## 2 Background

Since 2009, Freddie Mac has guaranteed mortgage-backed securities collateralized by loans originated through their Capital Market Execution (CME) platform. Although interested stakeholders can obtain information about these securities and their underlying collateral directly from the respective Master Servicer Trustees or Certificate Administrators (“CA”). Freddie Mac wishes to provide prospective investors and other interested stakeholders with a single website that provides users with access to data across these securities and allows users to analyze the performance of these securities and the underlying collateral. To this effect, Freddie Mac engaged FI Consulting to develop the MSIA tool and provide administrative support on an ongoing basis.

## 3 Application Overview

The MSIA Tool is a website that provides investors with information related to mortgage-backed securities and their underlying collateral. Data available through the MSIA Tool is almost entirely derived from the standard Investor Reporting Package (IRP) provided on a monthly basis by the Master Servicer, Trustee or CA for a given security issuance. For the sake of this document, and throughout the MSIA Tool, the term “deal” is used to describe a given security issuance. Furthermore, a “Deal” as defined in this application refers to the comprehensive issuance of both the FHMS Series Bonds (guaranteed) and the FREMF Series Bonds (not guaranteed) that relate to a given pool of loan and property collateral. For each deal, the MSIA provides users with information about the deal, the bonds issued through each deal, and the loans underlying each deal. The MSIA Tool also provides users with the ability to build a portfolio, based on bonds selected from one or more deals, and view information across the deals within their portfolio; users can construct, save, and revisit their portfolios on subsequent logins.

For either a single deal or a portfolio, the MSIA Tool provides users with a combination of standard and custom reporting capabilities. Most of the reports are interactive in nature; allowing the user to apply custom settings to the report and export report content into various formats. Furthermore, for a subset of reports (“custom reports”), users can build and save a version of the report that will be available to them on subsequent visits to the MSIA Tool.

The application administrator performs the initial deal setup for any new deals and updates the data for all deals on a monthly basis. As part of the monthly update, the administrator obtains the raw IRP files from the deal-specific trustees and loads them into the MSIA Tool. All data is subject to availability from the Master Servicer, Trustee or CA; the administrator does not correct any errors in the underlying IRP files when loading the MSIA tool.

## 4 Minimum Browser Requirements

The minimum required browsers are to use Chrome or Edge. IE is no longer supported.

## 5 Contacting the MSIA Tool Administrator

Support contact information is available from within the application by selecting the “Feedback” button from the home screen ribbon.

## 6 Accessing MSIA

This section describes how to access and use the MSIA Tool.

## 7 Website URL

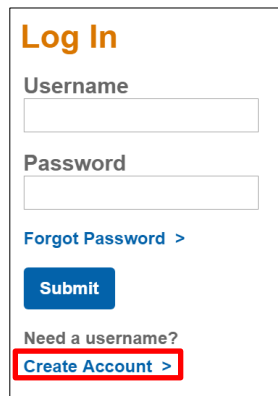
MSIA is available as a link via the Resources tab on Freddie Mac's Investor's website:

[https://mf.freddiemac.com/investors/sd\\_remic\\_lookup.html](https://mf.freddiemac.com/investors/sd_remic_lookup.html)

Alternatively, users can access the application via the following URL: <https://fm-msia.com>


## 8 Initial Account creation and Login

Users can create account using the "Create Account" button.



**Figure 1 – Create Account and Login**

Clicking the Create Account button will bring up the user registration form as illustrated in Figure 2. The user is required to accept the terms and conditions of use as part of the account creation process.



MSIA

## Create Account

Enter your information below to register for a username. (\*) indicates a required field.

Username: *	<input type="text"/>
Email Address: *	<input type="text"/>
Re-type Email Address: *	<input type="text"/>
First Name: *	<input type="text"/>
Last Name: *	<input type="text"/>
Company: *	<input type="text"/>
Job Title: *	<input type="text"/>
Address:	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
City:	<input type="text"/>
State:	-- Select State -- <input type="button" value="v"/>
Zip:	<input type="text"/>
Work Phone:	<input type="text"/>
Mobile Phone:	<input type="text"/>

I agree to the Terms of Service below. \* ☐

**Figure 2 - Legal Notice and Initial Profile**

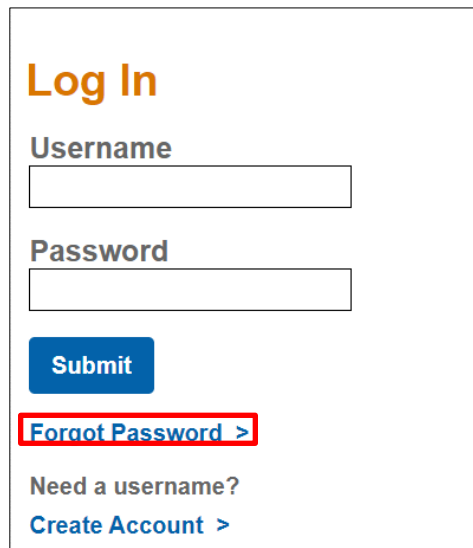
Upon registration, the MSIA Tool will generate and send a confirmation email with a temporary password to the email address provided. Users should use the link and temporary password for their initial login. The MSIA Tool will then enforce the user to update their password to one that is more secure and follows MSIA Tool's password guidelines.

The confirmation email has been sent. Please click the "Confirm" link in that email <sup>✕</sup> to complete registration process.

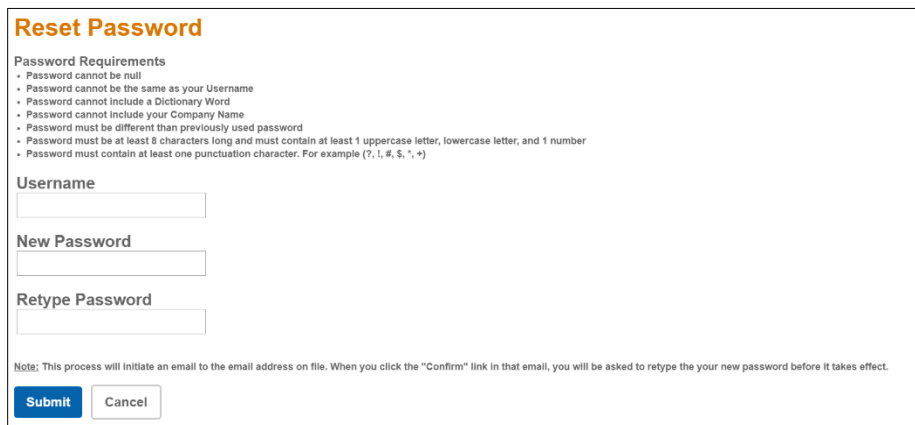
**Figure 3 - Registration Email Content**

## 9 Forgotten Passwords

A user can click on the 'Forgot Password' link on the MSIA Login page to request a password reset.



Clicking on 'Forgot Password' will bring the user to the Reset Password page. The user enters their User Name and a new password. Clicking 'Submit' will generate an email to the account associated with the User Name. 'Cancel' will discard the action.



**Reset Password**

**Password Requirements**

- Password cannot be null
- Password cannot be the same as your Username
- Password cannot include a Dictionary Word
- Password cannot include your Company Name
- Password must be different than previously used password
- Password must be at least 8 characters long and must contain at least 1 uppercase letter, lowercase letter, and 1 number
- Password must contain at least one punctuation character. For example (? , ! , # , \$ , % , & , \* , +)

Username

New Password

Retype Password

Note: This process will initiate an email to the email address on file. When you click the "Confirm" link in that email, you will be asked to retype the your new password before it takes effect.

Additional MSIA login features include:

- Maximum of four (4) login attempt failures.
- (5 seconds X n) lockout period between failed login attempts where N is the number of failed login attempts.

## 10 Application Navigation


## 11 Navigation Overview

Application navigation is primarily from the menus at the top and left side of the screen. The top menu consists of the CRT (Credit Risk Transfer) and Structured Deals, PC/Giant Deals, Profile, Feedback and Logout menu choices. The left side menu consists of search, Advanced Search,

Deals and Portfolio information, Documents and Administrator Menu (Admins only).

12 User Profile and Password reset (after login)

User profile information can be updated, and password can be reset by clicking on the profile button on the top menu or clicking User Profile button on the Administration menu of the application.



MSIA

[CRT and Structured Deals](#)
[PC/Giant Deals](#)
[Profile](#)
[Feedback](#)
[Logout](#)

Search

Go

Advanced Search >

IRP Date

Investor Reporting Package Date as of:

Deals

ALL

-- Select Deal --

Deal Summary

Standard Reports

User Profile

Cancel

Apply Changes

First Name\*

Shakeout

Last Name\*

Admin

Job Title\*

UAT Tester CSRF

\* Company

Freddie Mac

Address 1

Address 2

Address 3

City

State

-- Select State --

Zipcode

\* Work Phone

5555555555

Cell Phone

Application Email Notifications

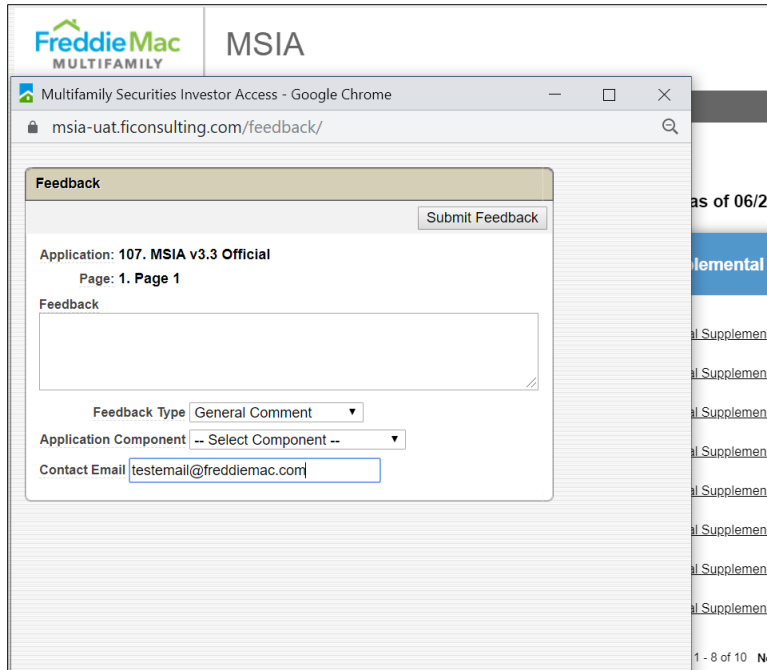
☐ Decline

Figure 5 - User Profile Change and Password Reset

13 Feedback

Feedback functionality allows user to provide feedback, report a problem, request an enhancement or submit an inquiry based on application component.





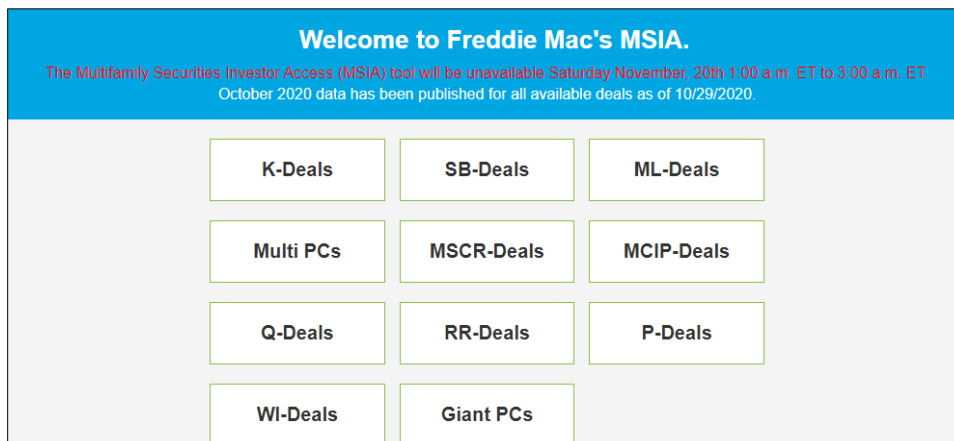
The screenshot shows a web browser window titled "Multifamily Securities Investor Access - Google Chrome" with the URL "msia-uat.ficonsulting.com/feedback/". The page features a "Feedback" form with a "Submit Feedback" button. The form includes the following fields:

- Application: 107. MSIA v3.3 Official
- Page: 1. Page 1
- Feedback (text area)
- Feedback Type: General Comment (dropdown menu)
- Application Component: -- Select Component -- (dropdown menu)
- Contact Email: testemail@freddiemac.com (text input)

Clicking Submit Feedback button will inform Freddie Mac about the same.

## 14 Landing Page

After successful login to the application user will have option to view data for Securitized and Other deals or Multi PC deals.



The screenshot shows the MSIA Landing Page with a blue header. The header contains the text "Welcome to Freddie Mac's MSIA." and a red warning message: "The Multifamily Securities Investor Access (MSIA) tool will be unavailable Saturday November, 20th 1:00 a.m. ET to 3:00 a.m. ET. October 2020 data has been published for all available deals as of 10/29/2020." Below the header, there is a grid of buttons for different deal types:

K-Deals	SB-Deals	ML-Deals
Multi PCs	MSCR-Deals	MCIP-Deals
Q-Deals	RR-Deals	P-Deals
WI-Deals	Giant PCs	

**Figure 4 - Landing Screen**

View Securitized and Other deals take user to Home page for K, SB, MCIP and other deals where user can view deal data, portfolio data and bulk download documents. View Multi PC, Giant Deals take user to Home page of Multi PC/Giant deals where user can perform quick

search on CUSIP or Pool number, view performance report and view tools & support documents. The 'Tools & Support' section can be found by scrolling to the bottom of the CRT and Structured Deals Homepage. The user can find documents such as this document and videos on how to get started, run reports and create a Portfolio in MSIA.

## 15 Securitized and Other Deals

## 16 CRT and Structured Deals Homepage

The homepage displays a sidebar menu that includes many features that will be described throughout the User Guide. On the homepage, there are 4 sections that display the following: Performance Reports, Supplemental Mortgage Loans, Freddie Mac Updates, and My Latest Downloads. Performance Reports and Supplemental Mortgage Loans are dynamic, meaning that the criteria will adapt to what deal type is selected in the "Deals" section of the sidebar menu.

Performance Reports	Supplemental Mortgage Loans
<p>Filter by Date -- Choose Year --</p> <p><a href="#">Testing All Docs (as of 11/04/2020)</a></p> <p><a href="#">Test ALL-Non-PC (as of 11/04/2020)</a></p> <p><a href="#">Testing K-deal Performance Report (as of 10/25/2019)</a></p> <p><a href="#">TEST K DEAL PERFORMANCE REPORT 2019 (as of 10/23/2019)</a></p> <p><a href="#">SB Deal Performance Report (as of 05/31/2019)</a></p> <p><a href="#">K Deal Performance Report (as of 05/31/2019)</a></p> <p><a href="#">K Deal Performance Report (as of 04/30/2019)</a></p> <p>row(s) 1 - 7 of 114 <a href="#">Next</a></p>	<p><a href="#">Test ALL-Non-PC (as of 12/04/2020)</a></p> <p><a href="#">Test ALL Docs (as of 12/04/2020)</a></p> <p><a href="#">Testing -Supplemental Report YK (as of 10/25/2019)</a></p> <p><a href="#">Testing -SBL Supplemental Report YK (as of 10/25/2019)</a></p> <p><a href="#">Testing -MCIP Supplemental Report (as of 10/25/2019)</a></p> <p><a href="#">KDeal Supplemental Mortgage Loans (as of 05/31/2019)</a></p> <p><a href="#">KDeal Supplemental Mortgage Loans (as of 04/30/2019)</a></p> <p><a href="#">KDeal Supplemental Mortgage Loans (as of 03/31/2019)</a></p> <p>row(s) 1 - 8 of 15 <a href="#">Next</a></p>
<h3>Freddie Mac Updates</h3> <p><a href="#">testing most recent 1 (as of 12/24/2020)</a></p> <p><a href="#">TESTING ALL-NON PC - Krish (as of 12/22/2020)</a></p> <p><a href="#">TESTING ALL - Krish (as of 12/22/2020)</a></p> <p><a href="#">Test FM UPdates ALL-NON-PC (as of 12/03/2020)</a></p> <p><a href="#">Testing All DOcs for FM (as of 11/04/2020)</a></p> <p><a href="#">FM Update to Robert Morgan Reports (as of 05/31/2019)</a></p> <p><a href="#">K-Deal Potential Exposure 10-17 (as of 10/17/2018)</a></p> <p><a href="#">SB-Deal Potential Exposure 10-17 (as of 10/17/2018)</a></p> <p>row(s) 1 - 8 of 16 <a href="#">Next</a></p>	

\* Hover your mouse over the report name to see a report description.



**IRP Date**

Investor Reporting  
Package Date as of:

09/25/2019
▼

## 20 Deal Reports

For deal reports, the user must first select a deal type and then deal name to enable the deal navigation options. After selecting a deal, users can navigate to the deal summary, any of the standard reports, or the custom report builder for the selected deal. (Excluding Multi PC Deals)

### 20.1 K-Deals

Pools of newly-acquired mortgages that feature a range of investor options and include guaranteed senior and interest-only classes.

### 20.2 SB-Deals

Pools of Small Balance Loans that feature a range of investor options including Fixed and Hybrid ARM classes with 5-, 7-, and 10-year terms.

### 20.3 ML-Deals

Fully guaranteed tax-exempt and taxable securities supported by pools of unenhanced tax-exempt and taxable multifamily housing collateral.

### 20.4 Multi PC Deals

Fully guaranteed tax-exempt and taxable securities that have a single-tier pass-through structure.

### 20.5 MSCR-Deals

Credit linked notes issued to cover credit losses on existing multifamily portfolios or bonds that Freddie Mac fully guarantees.

### 20.6 MCIP-Deals

Credit insurance policies issued by or ceded to global reinsurance companies to cover credit losses on multifamily portfolios or bonds that Freddie Mac fully guarantees.

### 20.7 Q-Deals

Pools backed by an underlying trust that holds multifamily mortgage loans that were not underwritten by Freddie Mac at the time they were originated, and the loans may not have

been purchased by Freddie Mac prior to securitization.

## 20.8 RR-Deals

Re-securitization of REMIC collateral, with flexible structuring features to issue new REMIC securities backed by these mortgage assets.

## 20.9 P-Deals

Re-securitization of PC collateral, with flexible structuring features to issue new REMIC securities backed by these mortgage assets.

## 20.10 WI-Deals

When-Issued K-Deal trust certificates are a unique way to align our multifamily loan origination with our investors' needs by reducing the time it takes to bring securities to market.

## 20.11 Giant PC Deals

Giant PCs are single class pass-through securities that enable investors to manage their portfolios more efficiently by consolidating PCs into larger Giant PCs.

## 21 Reports

### 21.1 Deal Summary Report

The Deal Summary, as depicted below, provides a current snapshot of information relative to a given deal. There are two (2) different deal summary screens depending on the type of deal selected. Users can print the Deal Summary at any time by clicking on the Print to PDF option in the lower right hand corner of the screen.

### 21.2 Fully loaded deals

Fully loaded deals are deals that have been closed for more than one month.

Summary

All Loans

FREMF 2019-KC03 DEAL SUMMARY

Lead Manager #1	Credit Suisse	IRP Reporting As of Date	08/25/2019	Trustee	Wells Fargo Bank
Lead Manager #2	Merrill Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	07/25/2019	Certificate Administrator	Wells Fargo Bank
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.
Total Current Balance	\$774,499,000	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.
Original Balance	\$774,499,000	Weighted Average DSCR	1.42	Rating Agency #1	
Weighted Average Note Rate	4.493%	Weighted Average ULTV	88.1%	Rating Agency #2	
Total Loans	24	No. of Properties	24	No. of Units	5,884

BOND SUMMARY

Class	CUSIP	Original Balance (MM)	Current Balance (MM)	Factor	Coupon	Coupon Type	Credit Enhancement		Current Rating #1	Current Rating #2	Cum Bond Loss		Accum Interest Shortfall (MM)	Guaranteed
							Secur	Current			Amt (MM)	% of Orig		
A-1	30297UAF9	\$32.4	\$32.4	100.0000%	3.0840%	Fixed Rate	10.000%	10.000%	N/A	N/A	\$0.0	0.00%	\$0.0	Y
A-2	30297UAH5	\$864.8	\$864.8	100.0000%	3.4960%	Fixed Rate	10.000%	10.000%	N/A	N/A	\$0.0	0.00%	\$0.0	Y
B	30297UAA0	\$19.4	\$19.4	100.0000%	4.5110%	WAC	7.500%	7.500%	N/A	N/A	\$0.0	0.00%	\$0.0	N
C	30297UAC8	\$58.1	\$58.1	100.0000%	4.5110%	Principal Only	0.000%	0.000%	N/A	N/A	\$0.0	0.00%	\$0.0	N
R	30297UAN2	\$0.0	\$0.0	0.0000%	0.0000%	Fixed Rate, Residual	0.000%	0.000%	N/A	N/A	\$0.0	0.00%	\$0.0	N
X-NCP	30297UAM4	\$774.5	\$774.5	100.0000%	0.0000%	Variable IO			N/A	N/A	\$0.0	0.00%	\$0.0	Y
X1	30297UAK8	\$697.0	\$697.0	100.0000%	0.8322%	Variable IO			N/A	N/A	\$0.0	0.00%	\$0.0	Y

TOP 15 LOANS

Property Name	Loan Number	Prospectus ID	Cut-off Date Loan Balance (MM)	Current Loan Balance (MM)	Current % of deal	Note Rate	Orig. Amort. DSCR**	Most Recent DSCR	Preced. FY DSCR	2nd Preced. FY DSCR	Cut-off Date LTV	Occup. Rate	Occup. Source	Multifamily Property Subtype	City	State	Diq. Status	Paid Thru Date	# Times Known Diq 12 months	# Times Known Diq Loan Life	Most Recent Value (MM)
Halstead New Rochelle	10198762	1	\$199.8	\$199.8	25.8%	4.490%	1.25				75.0%	95.8%	ORIGINAL	High Rise	New Rochelle	NY	Current	08/01/2019	0	0	\$266.4
Rosemont Vinings Ridge	10198763	2	\$59.2	\$59.2	7.6%	4.570%	1.25				64.7%	96.8%	ORIGINAL	Garden	Atlanta	GA	Current	08/01/2019	0	0	\$91.5
Roosevelt Square	10175748	3	\$49.7	\$49.7	6.4%	4.580%	1.25		1.71		80.6%	95.0%	PRECEDING	Mid Rise	Phoenix	AZ	Current	08/01/2019	0	0	\$82.3
Citra Apartments	10198764	4	\$42.8	\$42.8	5.5%	4.230%	1.73				80.0%	93.9%	ORIGINAL	Garden	Sunnyvale	CA	Current	08/01/2019	0	0	\$71.3
Links At Plum Creek	10198765	5	\$40.0	\$40.0	5.2%	4.310%	1.25				85.1%	94.3%	ORIGINAL	Garden	Castle Rock	CO	Current	08/01/2019	0	0	\$61.4
1016 Lofts	10198766	6	\$36.7	\$36.7	4.7%	4.140%	1.81				83.9%	94.0%	ORIGINAL	Mid Rise	Atlanta	GA	Current	08/01/2019	0	0	\$57.5
Waypoint At City Center	10198767	7	\$35.3	\$35.3	4.6%	4.440%	1.27				75.0%	94.0%	MOST RECENT	Garden	Newport News	VA	Current	08/01/2019	0	0	\$47.1
Edinborough Commons	10198768	8	\$30.1	\$30.1	3.9%	4.320%	1.25		1.75		64.2%	93.0%	MOST RECENT	Garden	Raleigh	NC	Current	08/01/2019	0	0	\$46.9
Southpointe Glen	10198769	9	\$28.9	\$28.9	3.7%	4.720%	1.69				66.3%	95.4%	ORIGINAL	Garden	Durham	NC	Current	08/01/2019	0	0	\$43.6
Charter Club Apartments	10198770	10	\$28.8	\$28.8	3.7%	4.140%	1.82				65.0%	93.5%	ORIGINAL	Garden	Everett	WA	Current	08/01/2019	0	0	\$44.3
Bayside Apartment Homes	10198771	11	\$26.5	\$26.5	3.4%	4.290%	1.25				69.8%	95.9%	ORIGINAL	Garden	Pinole	CA	Current	08/01/2019	0	0	\$37.9
Greenway Chase Apartments	10198772	12	\$22.9	\$22.9	3.0%	4.790%	1.26				73.3%	93.8%	ORIGINAL	Garden	Florissant	MO	Current	08/01/2019	0	0	\$31.3
Atrium At West Covina	10198773	13	\$22.3	\$22.3	2.9%	4.600%	1.25				63.6%	91.0%	MOST RECENT	Garden	West Covina	CA	Current	08/01/2019	0	0	\$35.1
The Park At Kensington	10198774	14	\$21.8	\$21.8	2.8%	4.380%	1.27				72.3%	95.0%	PRECEDING	Garden	Riverview	FL	Current	08/01/2019	0	0	\$30.1
Pointe West Apartment Homes	10198775	15	\$19.2	\$19.2	2.5%	4.790%	1.25				67.6%	94.6%	ORIGINAL	Garden	West Des Moines	IA	Current	08/01/2019	0	0	\$28.4

DELINQUENCY SUMMARY

Status	# of Loans	Balance	% Bal
Current	24	\$774,499,000	100.0%
Payment Not Received But Still In Grace Period Or Not Yet Due	0	\$0	0.0%
Late Payment But Less Than 30 days Delinquent	0	\$0	0.0%
30-59 Days Delinquent	0	\$0	0.0%
60-89 Days Delinquent	0	\$0	0.0%
90+ Days Delinquent	0	\$0	0.0%
Performing Matured Balloon	0	\$0	0.0%
Non Performing Matured Balloon	0	\$0	0.0%

DEAL REPORTS

1. Bond Level Data  
2. Collateral Summary  
3. Distribution Date Statement  
4. Financial File  
5. Loan Periodic Data  
6. Property Summary  
7. Restricted Servicer Reports  
8. Alternative Cusips File (non-

DEAL DOCUMENTS

1. Exhibit A-1  
2. Offering Circular Supplement  
3. Preliminary Term Sheet

## 21.3 Recently Closed Deals

Recently closed deals are deals that have recently closed (shorter than one month) and do not have reporting data available.

Summary

All Loans

FRESB 2019-SB63 DEAL SUMMARY					
Lead Manager #1	Wells Fargo Bank	IRP Reporting As of Date	N/A**	Trustee	U.S. Bank
Lead Manager #2	Amherst Pierpont Securities LLC	Next Pay Date		Certificate Administrator	U.S. Bank
Bond Payment Frequency	Monthly	Original Closing	06/21/2019	Master Servicer	Freddie Mac
Total Current Balance	\$530,366,561	Freddie Mac Deal Type	Conduit	Special Servicer	Situs Holdings, LLC
Original Balance	\$530,366,564	Weighted Average DSCR	1.29	Rating Agency #1	N/A
Weighted Average Note Rate	475.431%	Weighted Average ULTV	66.8%	Rating Agency #2	N/A
Total Loans	187	No. of Properties	187	No. of Units	7,218

**DEAL REPORTS**

- 1. Alternative Cusipos File (non-public)
- 2. Alternative Cusipos File (non-public)
- 3. Exhibit A-1: Fixed Rate (non-public)
- 4. New Deal Setup File (non-public)
- 5. New Deal Setup File (non-public)
- 6. New Deal Setup File (non-public)

**DEAL DOCUMENTS**

- 1. Exhibit A-1
- 2. Offering Circular Supplement
- 3. Preliminary Term Sheet

**RESTRICTED INVESTOR INFORMATION**

- Confidentiality Agreement

\*\* Full functionality and Data availability for this deal will not be available until after the first pay date

Print to PDF

## 21.4 Loan and Property Detail Screens

Loan and property detail screen are available when property name hyperlink is clicked. If the user navigates to these screens from a deal, the deal header will be displayed. If the user navigates to these screens from a portfolio, the portfolio summary will be displayed.

Loan Detail	Property Detail	Financials	Financial Details	Restricted Property Documents
<div> <div>Property Name</div> <div>Manchester State Thomas</div> </div> <div> <div>Property Subtype</div> <div>Garden</div> </div> <div> <div>Number Of Properties</div> <div>0</div> </div> <div> <div>City</div> <div>Dallas</div> </div> <div> <div>State</div> <div>TX</div> </div> <div> <div>Current Ending Sched Balance</div> <div>\$45,000,000</div> </div> <div> <div>Cut-Off Date Loan Balance</div> <div>\$45,000,000</div> </div> <div> <div>Current Loan Balance</div> <div>\$45,000,000</div> </div> <div> <div>Current % Of Deal</div> <div>10.3%</div> </div> <div> <div>Current Note Rate</div> <div>5.790%</div> </div> <div> <div>Net Rate</div> <div>5.719%</div> </div> <div> <div>Maturity Date</div> <div>01-NOV-19</div> </div> <div> <div>Balloon (Y/N)</div> <div>N</div> </div> <div> <div>Original Amortization Term</div> <div>120</div> </div> <div> <div>Original Term Of Loan</div> <div>120</div> </div> <div> <div>Interest Only Period</div> <div>120</div> </div> <div> <div>Remaining Term</div> <div>2</div> </div> <div> <div>Seasoning</div> <div>118</div> </div> <div> <div>A1 Amortizing DSCR (NCF)</div> <div>1.61</div> </div> <div> <div>Most Recent DSCR (NCF)</div> <div>-</div> </div> <div> <div>Preceding FY DSCR (NCF)</div> <div>-</div> </div> <div> <div>Second Preceding FY DSCR (NCF)</div> <div>-</div> </div> <div> <div>Most Recent Value</div> <div>-</div> </div> <div> <div>Cut-Off Date LTV</div> <div>61.5%</div> </div> <div> <div>Original Occupancy %</div> <div>96.5%</div> </div> <div> <div>Occupancy Date</div> <div>09/02/2009</div> </div> <div> <div>Occupancy %</div> <div>96.5%</div> </div> <div> <div>Occupancy Source</div> <div>ORIGINAL</div> </div> <div> <div>Payment Frequency</div> <div>Monthly</div> </div> <div> <div>Delq. Status</div> <div>Current</div> </div> <div> <div>Paid Through Date</div> <div>09/01/2019</div> </div> <div> <div># Times Known Delq - 12 Months</div> <div>0</div> </div> <div> <div># Times Known Delq - Loan Life</div> <div>0</div> </div> <div> <div>Date Of Last Modification</div> <div>-</div> </div> <div> <div>Modification Code</div> <div>-</div> </div> <div> <div>Most Recent SS Transfer Date</div> <div>-</div> </div> <div> <div>Reason For SS Transfer</div> <div>-</div> </div> <div> <div>Comments - DSLR</div> <div>-</div> </div> <div> <div>Date Added To Watchlist</div> <div>-</div> </div> <div> <div>Servicer Watchlist Code</div> <div>-</div> </div> <div> <div>Comments - Servicer Watchlist</div> <div>-</div> </div> <div> <div>Prepayment Provisions</div> <div>L(27) D(89) O(4)</div> </div>				

**Figure 59 - Loan and Property Detail - Loan Detail Tab**

The loan detail tab includes current and original information about the loan; for information presented that is directly or indirectly derived from property information, data presented reflects what was provided at the loan level in the IRP



Loan Detail		Property Detail	Financials	Financial Details	Restricted Property Documents											
Property ID	Name	Address	City	State	Zipcode	County	Type	Year Built	Renovation Year	Units	Valuation Date	Valuation	Valuation Source	Most Recent Occupancy Date	Most Recent Physical Occup.	Balance/Unit
2-001	DOMUS APARTMENTS	3411 CHESTNUT STREET	PHILADELPHIA	PA	19104	PHILADELPHIA	MF	2007		290	03/22/2010	\$111,000,000		09/30/2016	98.3%	\$274,091.30

Unit Mix

Deal	Prospectus ID	Loan ID	Property Name	EFF	One Br	Two Br	Three Br	Four or more BR	Total Num of Units	Average Unit Size
2010-K009	2	456000002	Domus Apartments	0	161	122	7	0	290	1106

1 - 1

Figure 60 - Loan and Property Detail - Property Detail Tab

The property detail tab includes information for any of the properties associated with a selected loan. In scenarios when multiple properties serve as collateral for a single loan, multiple records of information will appear on this tab. Unit mix data is also displayed for each loan

Loan Detail <b>Property Detail</b> <b>Financials</b>					
	Most Recent	Prior FY	Change from 2nd Prior FY to Prior FY	2nd Prior FY	UW
As of Date	01/01/2011-09/30/2011	12/31/2010	-	12/31/2009	-
Revenues	\$1,175,313	\$1,531,290	-12.52%	\$1,750,426	\$1,998,462
Expenses	\$492,088	\$653,042	43.15%	\$456,186	\$591,192
NOI	\$683,225	\$878,248	-32.14%	\$1,294,240	\$1,407,270
NCF	\$644,225	\$826,336	-33.48%	\$1,242,328	\$1,355,270
DSCR (NOI)	0.83	0.93	-0.46	1.39	1.18
DSCR (NCF)	0.78	0.87	-0.46	1.33	1.23
Occupancy	91.0%	93.0%	0.0%	93.0%	90.9%
Occupancy Date	09/30/2011	12/31/2010	-	12/31/2009	05/18/2009

Figure 61 - Loan and Property Detail - Financials Tab

Loan Detail	Property Detail	Financials	Financial Details	Restricted Property Documents
Restricted Loan Documents				
• Property Operating Statements		As of Date		
• Property Rent Rolls		As of Date		
<a href="#">Delete</a> • <a href="#">SB10_2_708158706_Lake Woodard Apartments.pdf</a>		12/31/2015		
• Property Inspections		As of Date		
<a href="#">Delete</a> • <a href="#">Inspection_rename test.xlsx</a>		01/30/2017		
• Miscellaneous or other documents		As of Date		
• OSAR/NOI		As of Date		
• Property Inspection Photo and Rent Roll		As of Date		

**Figure 62 – Restricted Property Documents**

The Restricted Property Documents tab is only visible to users who have restricted access. This section allows investors or deal parties to view/download documents that are not viewable by the general public, and are only available for deals that Freddie Mac is Master Servicer. Administrator of the application has control to delete files from this tab.

## 21.5 Standard Deal Reports

The left-hand navigation menu provides the user with access to Standard Deal Report screens. This section provides a brief overview of the thirteen standard report screens available in the Standard Reports menu. All of the Standard Deal Report pages include the Deal Summary section on the top of the screen.

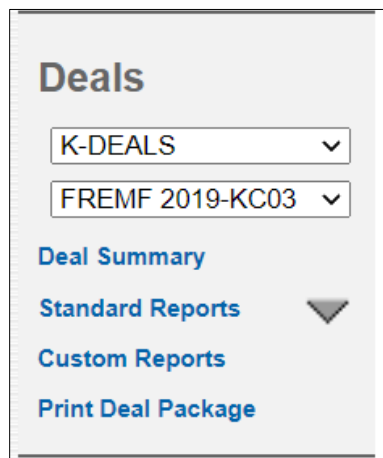


Figure 4 - Standard Deal Reports

### 21.5.1 All Loans Report

Report provides data for all the loans present in the deal and the report can be exported in CSV.

FREM 2019-KC03 DEAL SUMMARY													
Lead Manager #1	Credit Suisse			IRP Reporting As of Date		06/25/2019		Trustee		Wells Fargo Bank			
Lead Manager #2	Merril Lynch, Pierce, Fenner & Smith Incorporated			Next Pay Date		07/25/2019		Certificate Administrator		Wells Fargo Bank			
Bond Payment Frequency	Monthly			Original Closing		01/31/2019		Master Servicer		Keybank N.A.			
Total Current Balance	\$774,499,000			Freddie Mac Deal Type		Conduit		Special Servicer		Keybank N.A.			
Original Balance	\$774,499,000			Weighted Average DSCR		1.42		Rating Agency #1					
Weighted Average Note Rate	4.493%			Weighted Average ULTV		68.1%		Rating Agency #2					
Total Loans	24			No. of Properties		24		No. of Units		5,684			

Loan Periodic Report

Go

row(s) 1 - 24 of 24

Transaction Id	Group Id	Loan Id	Prospectus Loan Id	Distribution Date	Current Beginning Sched Bal	Current Ending Sched Bal	Paid Through Date	Current Index Rate	Current Note Rate	Maturity Date	Servicer And Trustee Fee Rate	Fee Rate Strip Rate 1	Fee Rate Strip Rate 2	Fee Rate Strip Rate 3
FREM 2019-KC03	1	10175746	3	20190625	\$49,748,000.00	\$49,748,000.00	20190601	0.000%	4.560%	20251001	.0012239	0	0	0

### 21.5.2 Loan Periodic

Report provides Loan Periodic data for the deals and the report can be exported in CSV.

FREMF 2018-KBX1 DEAL SUMMARY													
Lead Manager #1	J.P. Morgan	IRP Reporting As of Date	06/25/2019	Trustee	Wilmington Trust								
Lead Manager #2	Morgan Stanley	Next Pay Date	07/25/2019	Certificate Administrator	Wells Fargo Bank								
Bond Payment Frequency	Monthly	Original Closing	03/29/2018	Master Servicer	Wells Fargo Bank								
Total Current Balance	\$741,342,000	Freddie Mac Deal Type	Conduit	Special Servicer	Midland Loan Services								
Original Balance	\$741,342,000	Weighted Average DSCR	1.92	Rating Agency #1									
Weighted Average Note Rate	3.681%	Weighted Average ULTV	58.7%	Rating Agency #2									
Total Loans	13	No. of Properties	13	No. of Units	4,409								

Loan Periodic Report

row(s) 1 - 13 of 13


Transaction Id	Group Id	Loan Id	Prospectus Loan Id	Distribution Date	Current Beginning Sched Bal	Current Ending Sched Bal	Paid Through Date	Current Index Rate	Current Note Rate	Maturity Date	Servicer And Trustee Fee Rate	Fee Rate Strip Rate 1	Fee Rate Strip Rate 2	Fee Rate Strip Rate 3	Fee Rate Strip Rate 4	Fee Rate Strip Rate 5
FREMF 2018-KBX1	-	310161001	1	20190625	\$102,000,000.00	\$102,000,000.00	20190601	-	3.600%	20260101	.0010155	-	-	-	-	.00

## 21.5.3 Property Detail

Report provides Property Details for the Loans present in the deals and the report can be exported in CSV.

FREMF 2019-KC03 DEAL SUMMARY											
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank						
Lead Manager #2	Merrill Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank						
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.						
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.						
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1							
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2							
Total Loans	24	No. of Properties	24	No. of Units	5,684						

Property Details Report 

1 - 24 of 24

Transaction ID	Loan Id	Prospectus Loan Id	Property Id	Distribution Date	Cross Collateralized Loan Grp	Property Name	Property Address	Property City	Property State	Property Zip
FREMF 2019-KC03	10198762	1	1-001	20201026		Halstead New Rochelle	40 Memorial Highway	New Rochelle	NY	10801
FREMF 2019-KC03	10198770	10	10-001	20201026		Charter Club Apartments	1701 121st Street Southeast	Everett	WA	98208

## 21.5.4 Top 15 Loans

The Top 15 Loans report provides a list view of information related to the largest fifteen loans in each deal based on the current balance. A graph is also shown that illustrates the distribution of the loans by balance. Clicking the property name will open loan and property detail screens.

FREMF 2019-KC03 DEAL SUMMARY											
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank						
Lead Manager #2	Merit Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank						
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.						
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.						
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1							
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2							
Total Loans	24	No. of Properties	24	No. of Units	5,684						

Top 15 Loans Report

Property Name	Current Loan Balance	City	State	Paid Thru Date	# Properties	Most Recent Value	Cut-off Date LTV	Property Subtype	No. Dq. Last 12mo	Loan Amortization Type	Year Built
<a href="#">Halstead New Rochelle</a>	\$199,800,000	New Rochelle	NY	10/01/2020	1	\$266,400,000	75.0%	High Rise	0	Partial IO	2007
<a href="#">Rosemont Vinings Ridge</a>	\$59,179,000	Atlanta	GA	10/01/2020	1	\$91,500,000	64.7%	Garden	0	Partial IO	1982
<a href="#">Roosevelt Square</a>	\$49,748,000	Phoenix	AZ	10/01/2020	1	\$82,300,000	60.6%	Mid Rise	0	Partial IO	2001
<a href="#">Citra Apartments</a>	\$42,780,000	Sunnyvale	CA	10/01/2020	1	\$71,300,000	60.0%	Garden	0	Interest Only	1968
<a href="#">Links At Plum Creek</a>	\$39,684,384	Castle Rock	CO	10/01/2020	1	\$61,400,000	65.1%	Garden	0	Partial IO	2000
<a href="#">1016 Lofts</a>	\$36,725,000	Atlanta	GA	10/01/2020	1	\$57,500,000	63.9%	Mid Rise	0	Interest Only	2003
<a href="#">Waypoint At City Center</a>	\$35,325,000	Newport News	VA	10/01/2020	1	\$47,100,000	75.0%	Garden	0	Partial IO	1985
<a href="#">Edinborough Commons</a>	\$30,105,000	Raleigh	NC	10/01/2020	1	\$46,925,000	64.2%	Garden	0	Partial IO	1996
<a href="#">Southpoint Glen</a>	\$28,903,000	Durham	NC	10/01/2020	1	\$43,575,000	66.3%	Garden	0	Interest Only	1987
<a href="#">Charter Club Apartments</a>	\$28,808,000	Everett	WA	10/01/2020	1	\$44,320,000	65.0%	Garden	0	Interest Only	1991
<a href="#">Bayside Apartment Homes</a>	\$26,467,000	Pinole	CA	10/01/2020	1	\$37,900,000	69.8%	Garden	0	Partial IO	1973
<a href="#">Greenway Chase Apartments</a>	\$22,949,000	Florissant	MO	10/01/2020	1	\$31,300,000	73.3%	Garden	0	Partial IO	1987
<a href="#">Atrium At West Covina</a>	\$22,298,000	West Covina	CA	10/01/2020	1	\$35,100,000	63.5%	Garden	0	Partial IO	1962
<a href="#">The Park At Kensington</a>	\$21,760,000	Riverview	FL	10/01/2020	1	\$30,090,000	72.3%	Garden	0	Partial IO	1990
<a href="#">Pointe West Apartment Homes</a>	\$19,198,000	West Des Moines	IA	10/01/2020	1	\$28,400,000	67.6%	Garden	0	Partial IO	1989

  
[Export to Excel](#)

Figure 5 - Top 15 Loans Report

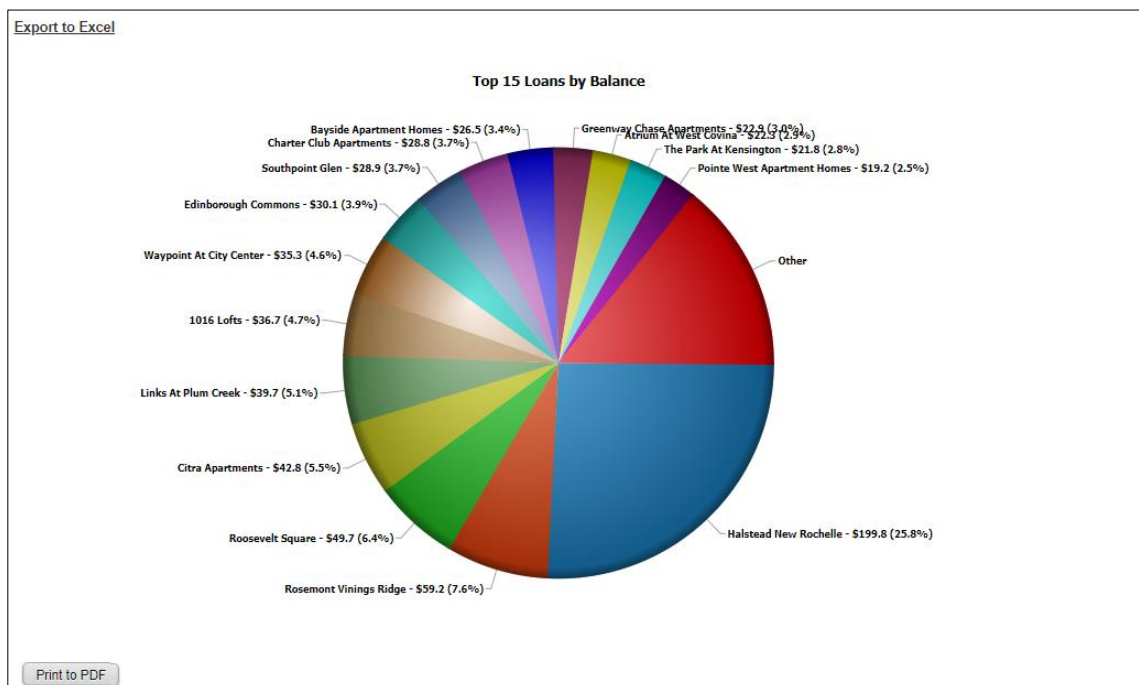


Figure 6 - Top 15 Loans Graph

## 21.5.5 DSCR Stratification


The DSCR Stratification report presents aggregate information for the selected deal through a table and graph. As shown below, the DSCR Stratification report presents the aggregate current balance, loan count, and three balance-weighted average calculations.

- Weighted average note rate.
- Weighted average loan-to-value (LTV) ratio.
- Weighted average DSCR.

The information is stratified based on a set of defined DSCR ranges, based on the most recent DSCR value available for each loan.

FREMF 2019-KC03 DEAL SUMMARY					
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank
Lead Manager #2	Merril Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1	
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2	
Total Loans	24	No. of Properties	24	No. of Units	5,684

DSCR Stratification Report 

[Export to Excel](#)

Category	Current Balance	Balance %	Loan Count	Weighted Average DSCR	Weighted Average Note Rate	Weighted Average LTV
1.20 - 1.29	\$28,903,000	3.7	1	1.29	4.720%	66.3%
1.30 - 1.39	\$44,058,000	5.7	2	1.33	4.481%	67.8%
1.40 - 1.49	\$19,198,000	2.5	1	1.48	4.790%	67.6%
1.50 - 1.59	\$312,941,000	40.4	5	1.53	4.500%	71.7%
1.60 - 1.69	\$84,068,000	10.9	3	1.65	4.505%	65.7%
1.70 - 1.79	\$16,125,000	2.1	1	1.74	4.790%	74.3%
1.80 - 1.89	\$39,684,384	5.1	1	1.81	4.310%	65.1%
1.90 - 1.99	\$194,396,195	25.1	7	1.96	4.375%	64.9%
2.00 and up	\$34,775,000	4.5	3	2.39	4.790%	62.2%
Total	\$774,148,579	100.0	24	1.69	4.493%	68.1%

Figure 7 - DSCR Stratification

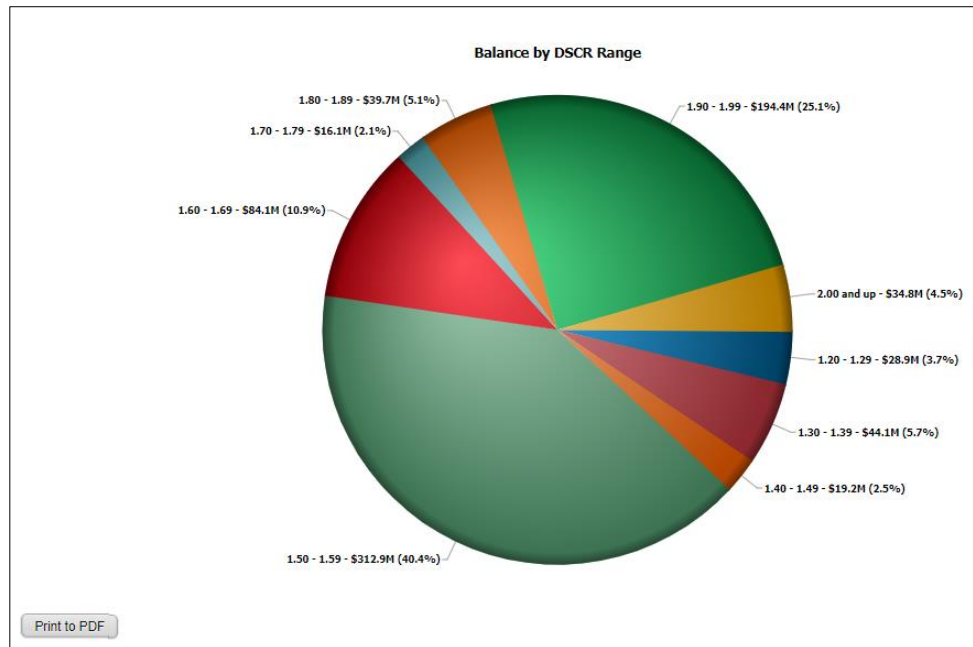


Figure 8 - Download Graphic to PDF

## 21.5.6 Top 15 MSAs

Top 15 MSA report provides certain aggregate information for the largest 15 Metropolitan Statistical Areas (MSAs) with respect to concentration within a deal.

FREMF 2019-KC03 DEAL SUMMARY							
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank		
Lead Manager #2	Merrill Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank		
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.		
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.		
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1			
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2			
Total Loans	24	No. of Properties	24	No. of Units	5,684		

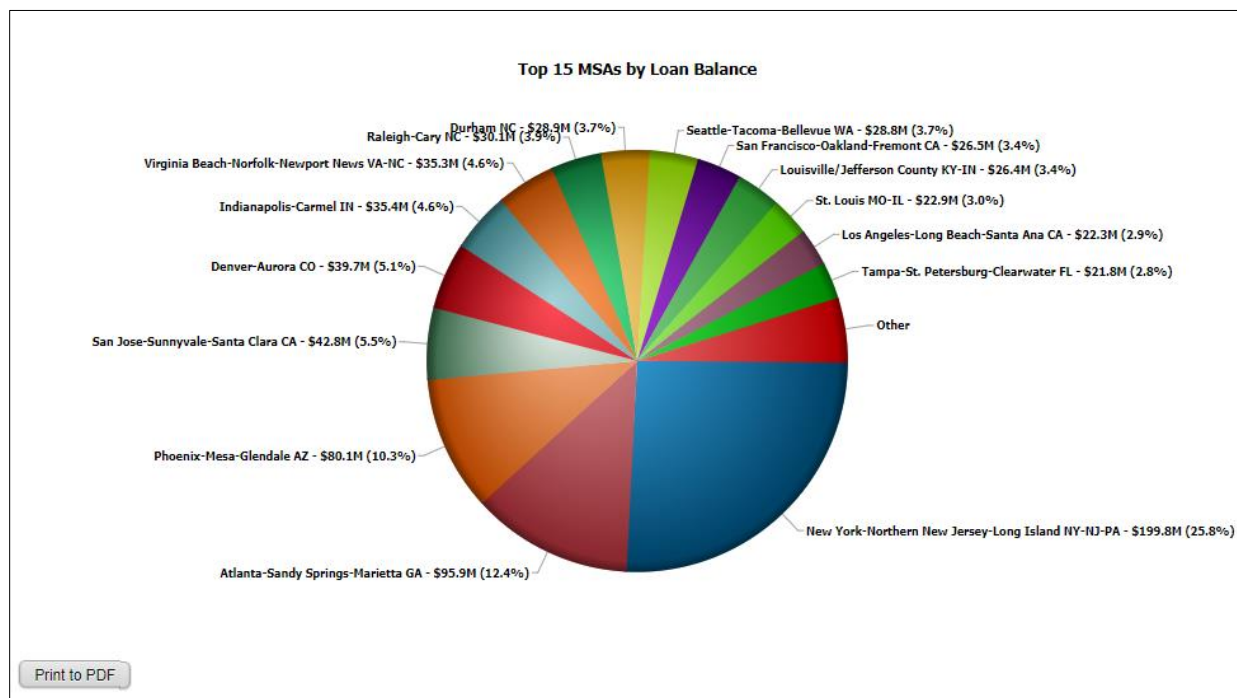
  

### Top 15 MSA Report

[Export to Excel](#)

Rank	MSA	Current Balance	Balance %	Loan Count	Weighted Average Note Rate	Weighted Average LTV	Weighted Average DSCR
1	New York-Northern New Jersey-Long Island NY-NJ-PA	\$199,800,000	25.8	1	4.490%	75.0%	1.51
2	Atlanta-Sandy Springs-Marietta GA	\$95,904,000	12.4	2	4.405%	64.4%	1.72
3	Phoenix-Mesa-Glendale AZ	\$80,053,000	10.3	3	4.587%	61.0%	1.88
4	San Jose-Sunnyvale-Santa Clara CA	\$42,780,000	5.5	1	4.230%	60.0%	1.68
5	Denver-Aurora CO	\$39,684,384	5.1	1	4.310%	65.1%	1.81
6	Indianapolis-Carmel IN	\$35,434,000	4.6	3	4.790%	67.1%	1.82
7	Virginia Beach-Norfolk-Newport News VA-NC	\$35,325,000	4.6	1	4.440%	75.0%	1.90
8	Raleigh-Cary NC	\$30,105,000	3.9	1	4.320%	64.2%	1.97
9	Durham NC	\$28,903,000	3.7	1	4.720%	66.3%	1.29
10	Seattle-Tacoma-Bellevue WA	\$28,808,000	3.7	1	4.140%	65.0%	1.96
11	San Francisco-Oakland-Fremont CA	\$26,467,000	3.4	1	4.290%	69.8%	1.57
12	Louisville/Jefferson County KY-IN	\$26,390,000	3.4	2	4.790%	61.9%	2.37
13	St. Louis MO-IL	\$22,949,000	3.0	1	4.790%	73.3%	1.60
14	Los Angeles-Long Beach-Santa Ana CA	\$22,298,000	2.9	1	4.600%	63.5%	1.34
15	Tampa-St. Petersburg-Clearwater FL	\$21,760,000	2.8	1	4.360%	72.3%	1.32





## 21.5.7 Property Subtype

Property Subtype report provides certain aggregate information for property subtypes with respect to concentration within a deal. This report also provides a graphical illustration of these balances.

FREMF 2019-KC03 DEAL SUMMARY					
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank
Lead Manager #2	Merrill Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1	
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2	
Total Loans	24	No. of Properties	24	No. of Units	5,684

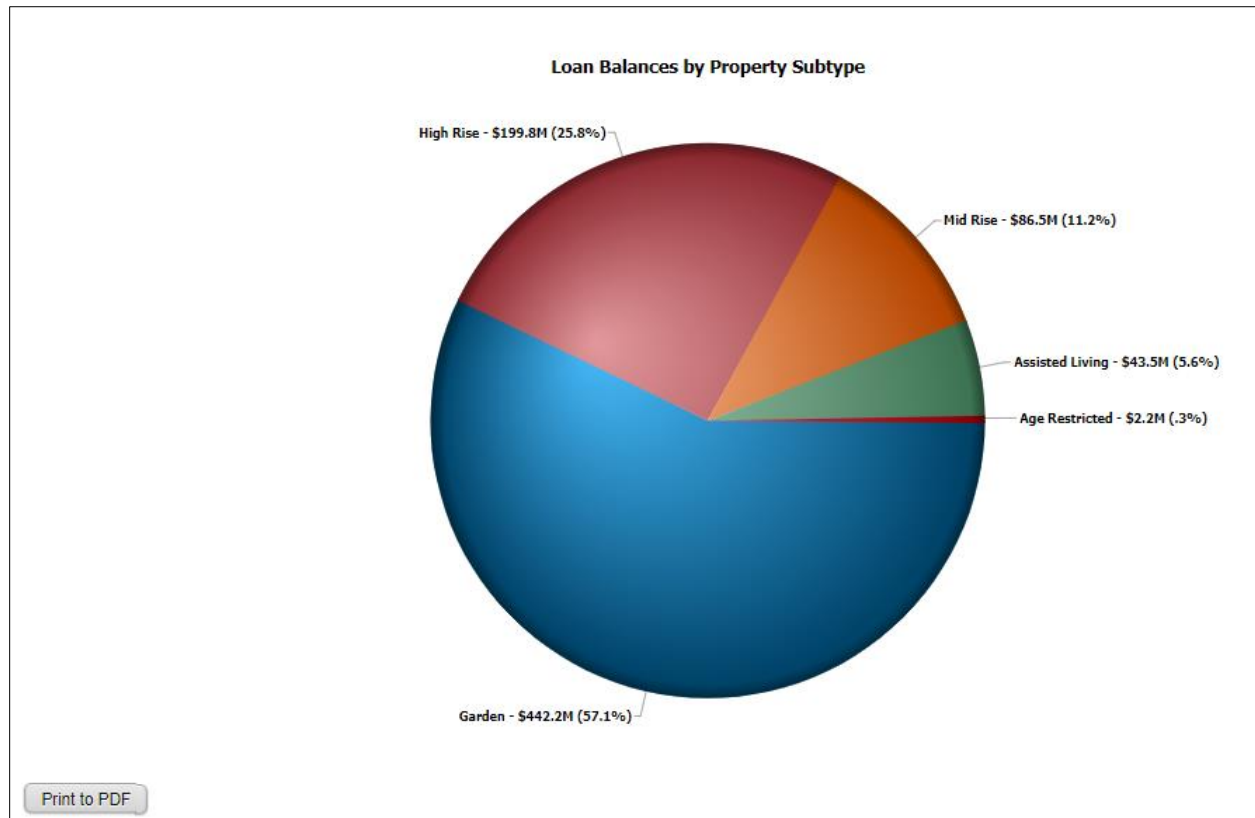
  

**Property Subtype Report**
?

[Export to Excel](#)

Property Subtype	Current Balance	Balance %	Loan Count	Weighted Average Note Rate	Weighted Average LTV	Weighted Average DSCR
Garden	\$442,225,384	57.1	16	4.485%	66.7%	1.65
High Rise	\$199,800,000	25.8	1	4.490%	75.0%	1.51
Mid Rise	\$86,473,000	11.2	2	4.382%	62.0%	1.99
Assisted Living	\$43,485,000	5.6	4	4.790%	62.8%	2.23
Age Restricted	\$2,165,195	0.3	1	4.790%	59.5%	1.94
Total	\$774,148,579	100.0	24	4.493%	68.1%	1.69





## 21.5.8 LTV Stratification

LTV Stratification report provides aggregate information for a set of pre-defined loan-to-value (LTV) ranges with respect to concentration within a particular deal.

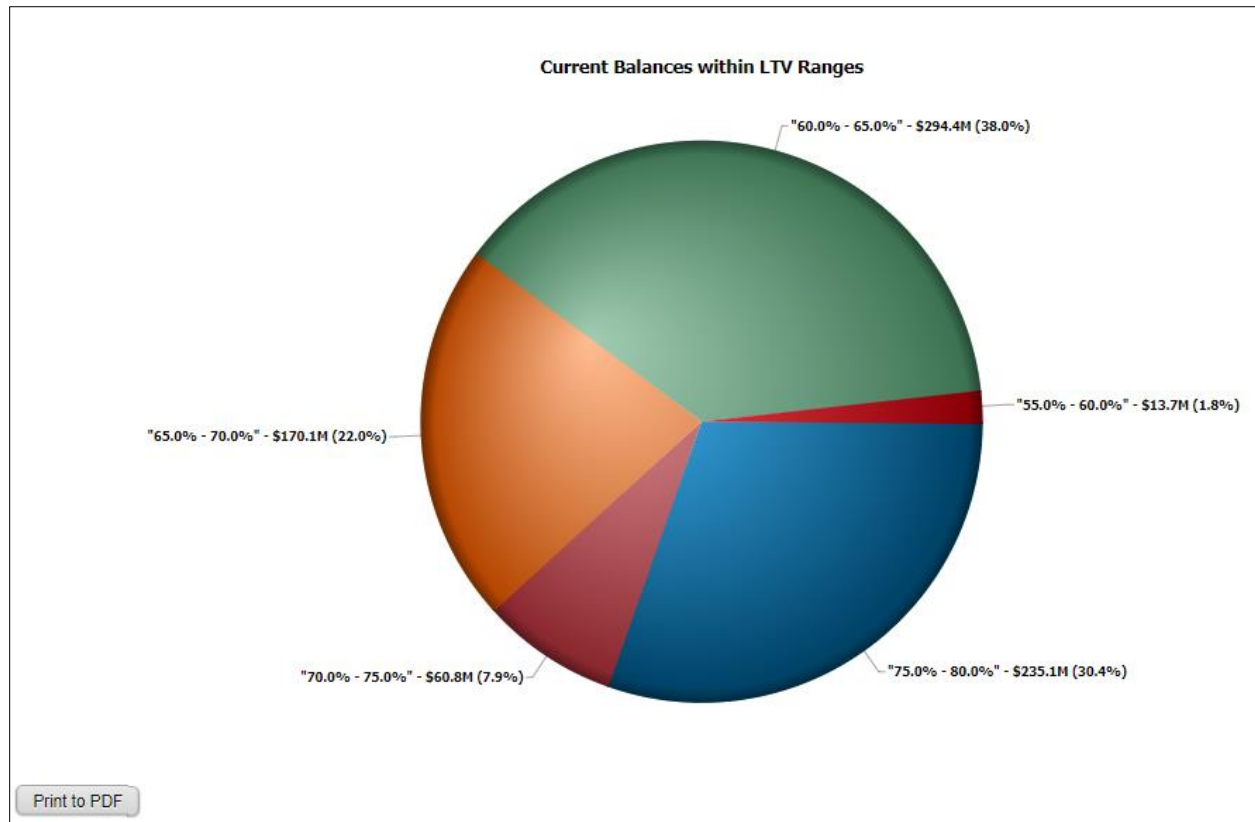
FREMF 2019-KC03 DEAL SUMMARY					
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank
Lead Manager #2	Merrill Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1	
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2	
Total Loans	24	No. of Properties	24	No. of Units	5,684

**LTV Stratification Report** [?](#)

[Export to Excel](#)

LTV Range	Current Balance	Balance %	Loan Count	Weighted Average Note Rate	Weighted Average LTV	Weighted Average DSCR
55.0% - 60.0%	\$13,685,195	1.8	2	4.782%	57.8%	1.96
60.0% - 65.0%	\$294,395,000	38.0	10	4.466%	62.8%	1.82
65.0% - 70.0%	\$170,109,384	22.0	7	4.478%	66.8%	1.64
70.0% - 75.0%	\$60,834,000	7.9	3	4.636%	73.2%	1.54
75.0% - 80.0%	\$235,125,000	30.4	2	4.482%	75.0%	1.57
<b>Total</b>	<b>\$774,148,579</b>	<b>100.0</b>	<b>24</b>	<b>4.493%</b>	<b>68.1%</b>	<b>1.69</b>



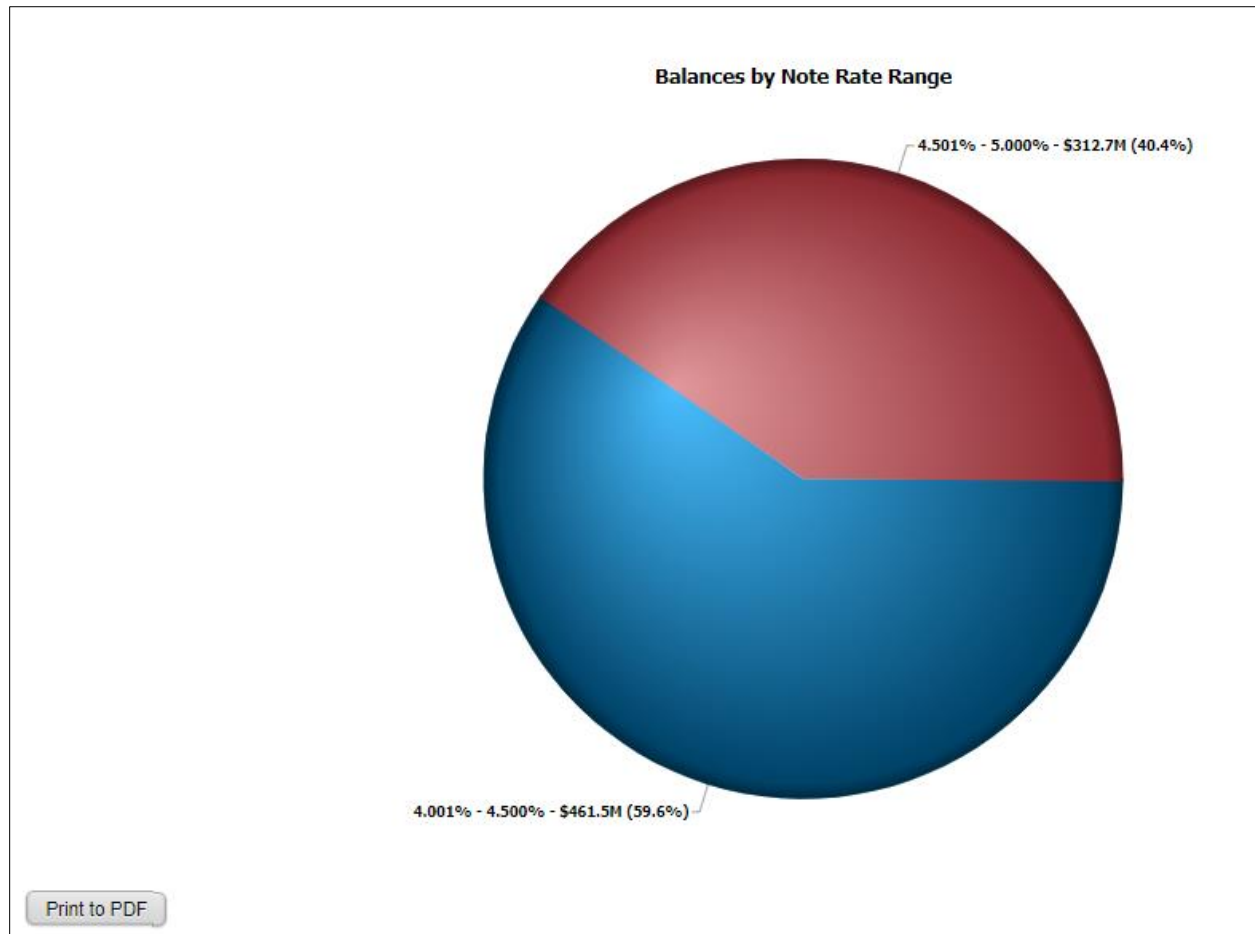
## 21.5.9 Note Rate Stratification

Note Rate Stratification report provides aggregate information for a set of pre-defined note rate ranges with respect to concentration within a deal.

FREMF 2019-KC03 DEAL SUMMARY					
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank
Lead Manager #2	Merrill Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1	
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2	
Total Loans	24	No. of Properties	24	No. of Units	5,684

Note Rate Stratification Report						
<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>			<a href="#">Export to Excel</a>			
Rate Category	Current Balance	Balance %	Loan Count	Weighted Average Note Rate	Weighted Average LTV	Weighted Average DSCR
4.001% - 4.500%	\$461,454,384	59.6	9	4.368%	70.1%	1.67
4.501% - 5.000%	\$312,694,195	40.4	15	4.676%	65.1%	1.71
Total	\$774,148,579	100.0	24	4.493%	68.1%	1.69




## 21.5.10 Occupancy Range

Occupancy Range report provides aggregate information for a set of pre-defined occupancy ranges with respect to concentration within a deal.

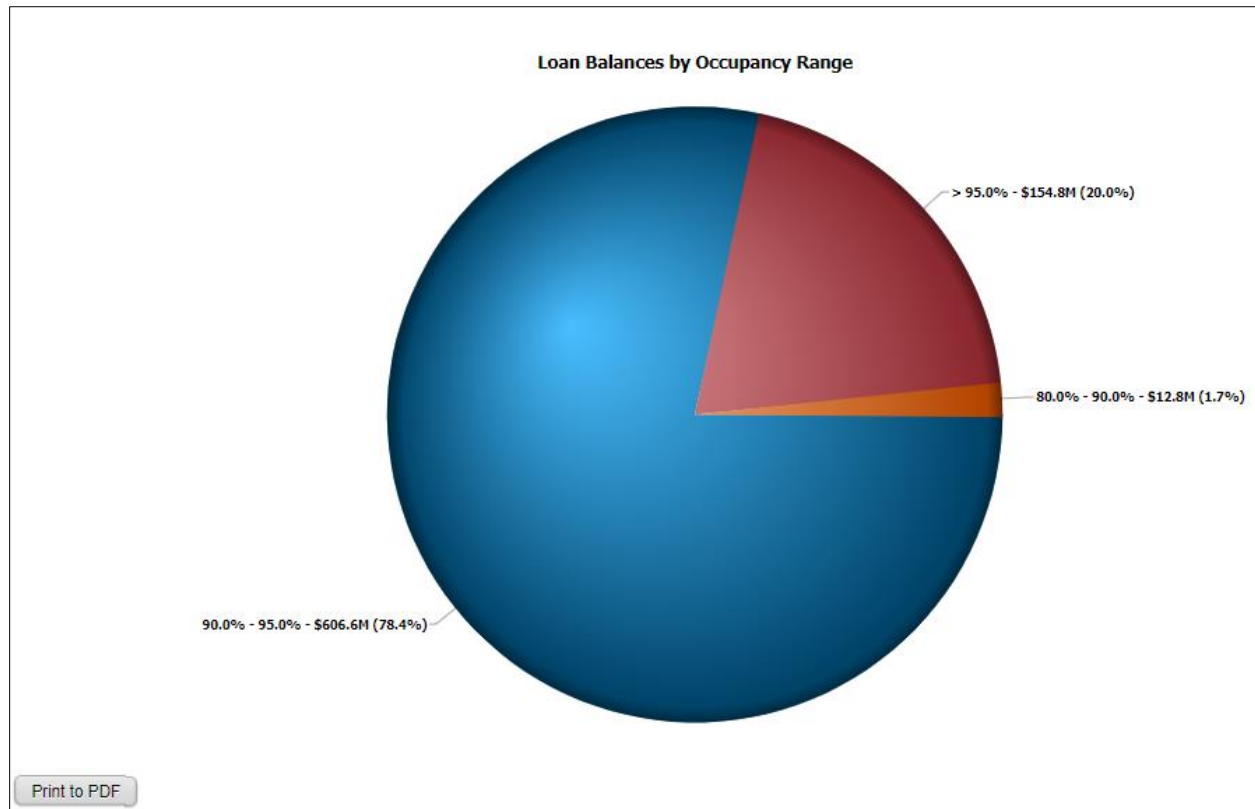
FREMF 2019-KC03 DEAL SUMMARY					
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank
Lead Manager #2	Merrill Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1	
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2	
Total Loans	24	No. of Properties	24	No. of Units	5,684

**Occupancy Range Report** 

[Export to Excel](#)

Occupancy Range ↑	Current Balance	Balance %	Loan Count	Weighted Average Note Rate	Weighted Average LTV	Weighted Average DSCR
80.0% - 90.0%	\$12,805,000	1.7	1	4.790%	60.1%	2.43
90.0% - 95.0%	\$606,553,384	78.4	15	4.453%	68.2%	1.68
> 95.0%	\$154,790,195	20.0	8	4.625%	68.4%	1.64
Total	\$774,148,579	100.0	24	4.493%	68.1%	1.69



## 21.5.11 Amortization Type

Amortization Type report provides aggregate information for the amortization types defined in the database with respect to concentration within a deal.

FREMF 2019-KC03 DEAL SUMMARY					
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank
Lead Manager #2	Merrill Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1	
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2	
Total Loans	24	No. of Properties	24	No. of Units	5,684

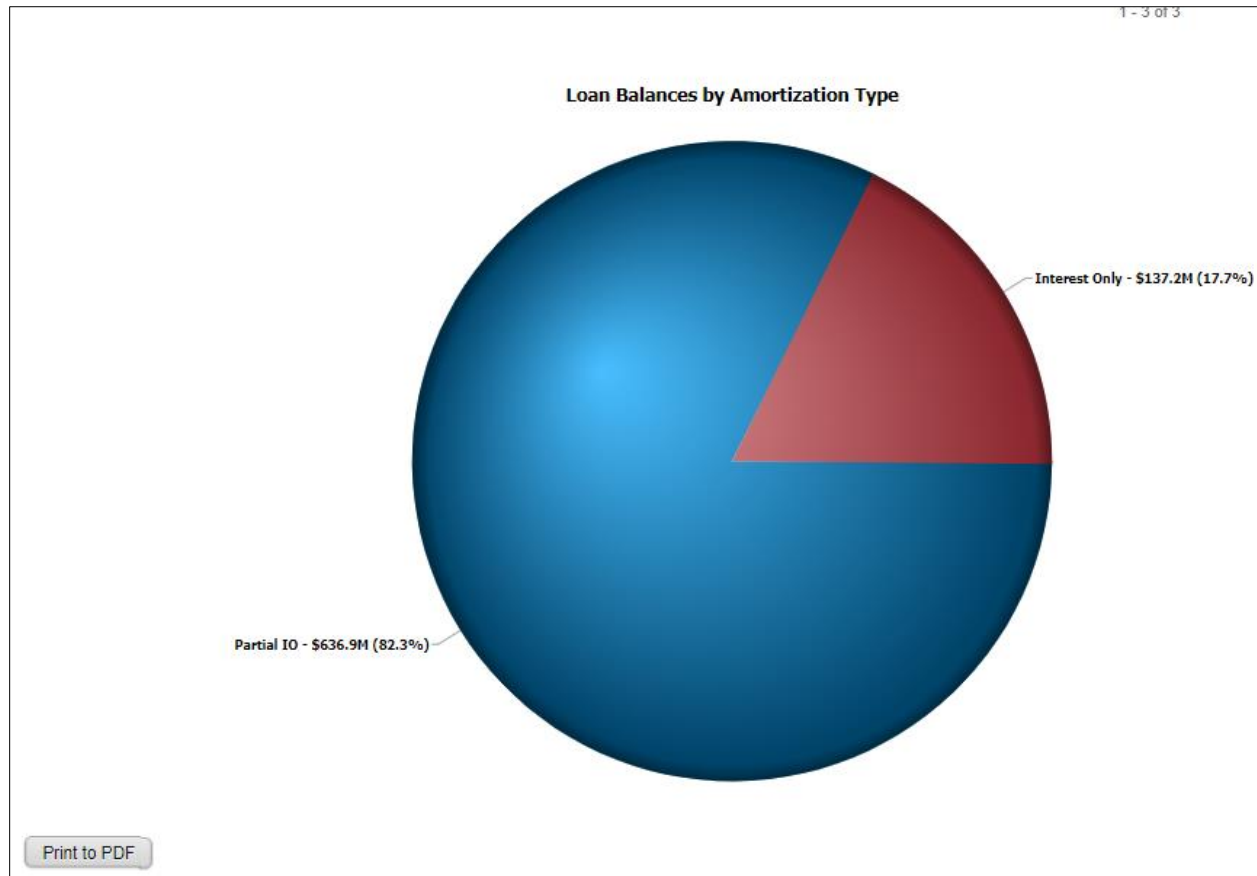
  

**Amortization Report**
?

[Export to Excel](#)

Loan Amortization Type	Current Balance	Balance %	Loan Count	Weighted Average Note Rate	Weighted Average LTV	Weighted Average DSCR
Partial IO	\$636,932,579	82.3	20	4.536%	69.1%	1.68
Interest Only	\$137,216,000	17.7	4	4.290%	63.4%	1.74
Total	\$774,148,579	100.0	24	4.493%	68.1%	1.69

1 - 3 of 3



## 21.5.12 Year Built Range

Year Built Range report provides aggregate information for a set of year-built ranges defined by the data in the database with respect to concentrations within a deal.

FREMF 2019-KC03 DEAL SUMMARY					
Lead Manager #1	Credit Suisse	IRP Reporting As of Date	10/26/2020	Trustee	Wells Fargo Bank
Lead Manager #2	Merrill Lynch, Pierce, Fenner & Smith Incorporated	Next Pay Date	11/25/2020	Certificate Administrator	Wells Fargo Bank
Bond Payment Frequency	Monthly	Original Closing	01/31/2019	Master Servicer	Keybank N.A.
Total Current Balance	\$774,148,579	Freddie Mac Deal Type	Conduit	Special Servicer	Keybank N.A.
Original Balance	\$774,499,000	Weighted Average DSCR	1.69	Rating Agency #1	
Weighted Average Note Rate	4.493%	Weighted Average ULTV	68.1%	Rating Agency #2	
Total Loans	24	No. of Properties	24	No. of Units	5,684

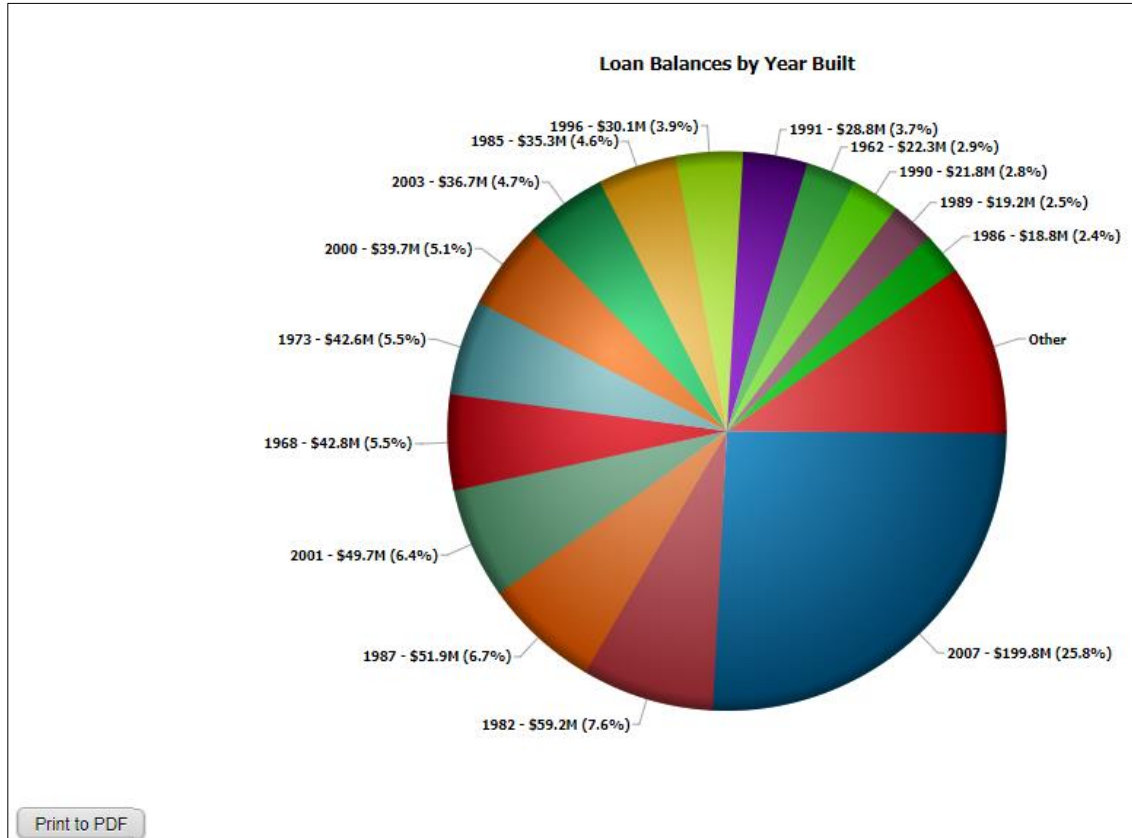
Year Built Report ?

Export to Excel

Year Built	Current Balance	Balance %	Loan Count	Weighted Average Note Rate	Weighted Average LTV	Weighted Average Dscr
2007	\$199,800,000	25.8	1	4.490%	75.0%	1.51
1982	\$59,179,000	7.6	1	4.570%	64.7%	1.56
1987	\$51,852,000	6.7	2	4.751%	69.4%	1.43
2001	\$49,748,000	6.4	1	4.560%	60.6%	1.99
1968	\$42,780,000	5.5	1	4.230%	60.0%	1.68
1973	\$42,592,000	5.5	2	4.479%	71.5%	1.63
2000	\$39,684,384	5.1	1	4.310%	65.1%	1.81
2003	\$36,725,000	4.7	1	4.140%	63.9%	1.98
1985	\$35,325,000	4.6	1	4.440%	75.0%	1.90
1996	\$30,105,000	3.9	1	4.320%	64.2%	1.97
1991	\$28,808,000	3.7	1	4.140%	65.0%	1.96
1962	\$22,298,000	2.9	1	4.600%	63.5%	1.34
1990	\$21,760,000	2.8	1	4.360%	72.3%	1.32
1989	\$19,198,000	2.5	1	4.790%	67.6%	1.48
1986	\$18,785,000	2.4	1	4.540%	64.4%	1.55
1980	\$18,339,000	2.4	1	4.790%	69.7%	1.64
2012	\$13,585,000	1.8	1	4.790%	63.5%	2.31
2009	\$12,805,000	1.7	1	4.790%	60.1%	2.43
2017	\$11,520,000	1.5	1	4.780%	57.5%	1.96
2015	\$8,710,000	1.1	1	4.790%	65.0%	1.58
2014	\$8,385,000	1.1	1	4.790%	63.5%	2.45
1997	\$2,165,195	0.3	1	4.790%	59.5%	1.94
Total	\$774,148,579	100.0	24	4.493%	68.1%	1.69

1 - 23 of 23



## 21.5.13 Delinquencies


The standard delinquencies report contains three sections in addition to the standard deal header. The Delinquency Report (Summary), Delinquency Loan List, Watchlist Loans, and Delinquency by Month reports can all be downloaded in PDF or CSV format by the user.

FREMF 2012-K18 DEAL SUMMARY					
Lead Manager #1	J.P. Morgan	IRP Reporting As of Date	09/25/2019	Trustee	U.S. Bank
Lead Manager #2	Wells Fargo Bank	Next Pay Date	07/25/2019	Certificate Administrator	Wells Fargo Bank
Bond Payment Frequency	Monthly	Original Closing	05/22/2012	Master Servicer	Keybank N.A.
Total Current Balance	\$1,077,114,787	Freddie Mac Deal Type	Conduit	Special Servicer	Wells Fargo Bank
Original Balance	\$1,212,410,362	Weighted Average DSCR	1.61	Rating Agency #1	DBRS Ltd.
Weighted Average Note Rate	4.447%	Weighted Average ULTV	71.1%	Rating Agency #2	Fitch, Inc.
Total Loans	74	No. of Properties	48	No. of Units	21,491

Delinquency Report				
View	Status	# of Loans	Balance	% Balance
<b>Current Period</b>				
<a href="#">View</a>	Current	73	\$1,060,955,143	98.50
<a href="#">View</a>	Payment Not Received But Still In Grace Period Or Not Yet Due	0	\$0	0.00
<a href="#">View</a>	Late Payment But Less Than 30 days Delinquent	0	\$0	0.00
<a href="#">View</a>	30-59 Days Delinquent	0	\$0	0.00
<a href="#">View</a>	60-89 Days Delinquent	0	\$0	0.00
<a href="#">View</a>	90+ Days Delinquent	0	\$0	0.00
<a href="#">View</a>	Performing Matured Balloon	0	\$0	0.00
<a href="#">View</a>	Non Performing Matured Balloon	0	\$0	0.00
<a href="#">View</a>	REO	1	\$16,159,644	1.50
<a href="#">View</a>	Performing Specially Serviced	0	\$0	0.00
<a href="#">View</a>	Watchlist	2	\$55,142,203	5.12
<b>Prior Period</b>				
<a href="#">View</a>	Current	73	\$1,062,878,640	98.50
<a href="#">View</a>	Payment Not Received But Still In Grace Period Or Not Yet Due	0	\$0	0.00
<a href="#">View</a>	Late Payment But Less Than 30 days Delinquent	0	\$0	0.00
<a href="#">View</a>	REO	1	\$16,189,491	1.50
<a href="#">View</a>	Performing Specially Serviced	0	\$0	0.00
<a href="#">View</a>	Watchlist	4	\$74,285,767	6.90


**Delinquency Report (Summary):** This section provides information on the number of loans and aggregate loan balance associated with different loan payment status values. Statistics for a subset of these categories is also provided for the prior reporting period.

Delinquency Report 			
Status	# of Loans	Balance	% Balance
Current	71	\$1,223,535,266	100.00
Payment Not Received But Still In Grace Period Or Not Yet Due	0	\$0	0.00
Late Payment But Less Than 30 days Delinquent	0	\$0	0.00
30-59 Days Delinquent	0	\$0	0.00
60-89 Days Delinquent	0	\$0	0.00
90+ Days Delinquent	0	\$0	0.00
Performing Matured Balloon	0	\$0	0.00
Non Performing Matured Balloon	0	\$0	0.00
Performing Specially Serviced	0	\$0	0.00
Watchlist	0	\$0	0.00
Current - Previous Period	71	\$1,223,820,093	100.00
Payment Not Received But Still In Grace Period Or Not Yet Due - Previous Period	0	\$0	0.00
Late Payment But Less Than 30 days Delinquent - Previous Period	0	\$0	0.00
Performing Specially Serviced - Previous Period	0	\$0	0.00
Watchlist - Previous Period	0	\$0	0.00

[Download](#) | [PDF](#)

Figure 9 - Delinquency Report Summary

**Delinquency Loan List.** This section provides a list of loans that are in any state of delinquency. Clicking the property name will open loan and property detail screens.

Delinquent Loan List													
<input type="checkbox"/> All <input checked="" type="checkbox"/> Delq. Status <input type="checkbox"/> 													
Delq. Status : 60-89 Days Delinquent													
Property Name	Current Loan Balance	Current % Of Deal	Paid Thru Date	# Time Delq 12 Mths	# Time Delq Life	DSCR (NCF)	Orig Term	Seasoning	Maturity Date	MSA	Loan Amortization Type	Year Built	Note Rate
<a href="#">Arbor Green Apartments</a>	\$14,936,806	1.4	02/01/2012	2	2	0.78	84	42	11/01/2015	Indianapolis -Carmel IN	Partial IO	1999	6.050%

1 - 1 of 1

Figure 10 - Delinquency Loan List

**Performing Specially Serviced** – The Performing Specially Serviced are loans that are in Special Servicing, but are not delinquent.

Performing Specially Serviced Loans										
Property Name	Current Loan Balance	Current % Of Deal	Paid Thru Date	Total Exposure	Maturity Date	Note Rate	Number of Units	Most Recent Valuation Date	Most Recent Value	
<a href="#">Arbor Green Apartments</a>	\$14,953,039	1.4	2/1/2012	\$14,953,039	11/1/2015	6.05%	208	11/1/2010	\$18,691,299	

Figure 11 – Performing Specially Serviced Loans

**Watchlist Loans** – Watchlist Loans are loans that are still performing but have met one or



more of the criteria from the Portfolio Review Guidelines. The Portfolio Review Guidelines (PRG) represent a list of criteria that can be applied systematically to determine whether a loan will be reported on the Servicer Watchlist and establish a release threshold that defines when a loan should be removed from the Servicer Watchlist. For a complete discussion of the PRG, please see the Commercial Real Estate Finance Committee (CREFC) website here:

<http://www.crefc.org>.

Property Name	Date Added To Watchlist	Current Loan Balance	Current % Of Deal	Paid Through Date	Maturity Date	Servicer Watchlist Code
<a href="#">THE LINKS AT TUSCALOOSA</a>	03/11/2010	\$48,661,365	4.65	04/01/2012	11/01/2018	1E
<a href="#">THE LINKS AT LINCOLN</a>	03/11/2010	\$37,000,715	3.54	04/01/2012	10/01/2018	1E
<a href="#">BLACK LAKE APARTMENTS</a>	10/11/2011	\$22,969,661	2.20	04/01/2012	01/01/2019	1E
<a href="#">740 RIVER DRIVE</a>	10/13/2009	\$16,946,915	1.62	04/01/2012	03/01/2019	1E
<a href="#">VILLAGE SQUARE APARTMENTS</a>	03/11/2010	\$10,933,537	1.05	04/01/2012	11/01/2015	1E
<a href="#">SUN POINTE LAKE APARTMENTS</a>	10/12/2010	\$6,715,970	0.64	04/01/2012	12/01/2018	"1F ,1E "
<a href="#">MORGAN OAKS APARTMENTS</a>	09/12/2011	\$5,539,014	0.53	04/01/2012	09/01/2018	1E
<a href="#">ASPEN GREEN APARTMENTS</a>	08/11/2011	\$5,545,164	0.53	04/01/2012	07/01/2013	"1F ,1E "
<a href="#">SCOTTSDALE SERRENTO APARTMENTS</a>	02/11/2011	\$3,845,987	0.37	04/01/2012	02/01/2019	1F

1 - 9

**Figure 12 – Watchlist Loans**

**Delinquency by month** - This section provides a monthly summary of delinquency activity for a selected deal since deal settlement.

Date 	Delinquency Count	Delinquency Amount	Delinquency Pct
05/25/2012	1	\$15,200,000	1.45
04/25/2012	1	\$15,200,000	1.45
03/26/2012	0	\$0	0.00
02/27/2012	0	\$0	0.00
01/25/2012	0	\$0	0.00
12/27/2011	0	\$0	0.00
11/25/2011	0	\$0	0.00
10/25/2011	0	\$0	0.00
09/26/2011	0	\$0	0.00
08/25/2011	0	\$0	0.00
07/25/2011	0	\$0	0.00
06/27/2011	0	\$0	0.00
05/25/2011	0	\$0	0.00
04/25/2011	0	\$0	0.00
03/25/2011	0	\$0	0.00
02/25/2011	0	\$0	0.00
01/25/2011	0	\$0	0.00
12/27/2010	0	\$0	0.00
11/26/2010	0	\$0	0.00
10/25/2010	0	\$0	0.00
09/27/2010	0	\$0	0.00
08/25/2010	0	\$0	0.00
07/26/2010	0	\$0	0.00
06/25/2010	0	\$0	0.00
05/25/2010	0	\$0	0.00
04/26/2010	0	\$0	0.00
03/25/2010	0	\$0	0.00
02/25/2010	0	\$0	0.00
01/25/2010	0	\$0	0.00
12/28/2009	0	\$0	0.00
11/25/2009	0	\$0	0.00
10/26/2009	0	\$0	0.00
09/25/2009	0	\$0	0.00
08/25/2009	0	\$0	0.00
07/27/2009	0	\$0	0.00

[Download](#) | [PDF](#)

row(s) 1 - 35 of 35

Figure 13 - Delinquencies by month

## 21.5.14 Custom Reports

Users can create and save their own custom reports that will be available during any subsequent session. For example, in the screen shot below, the user has already created and saved two 'Private' reports.

Go		1. Test Report	⌵	Rows	25	⌵	Actions ⌵
# Properties	2nd Preceding FY DSCR (NCF)	Actual Balance	Balance Range	Balloon	City		
1	-	\$199,800,000	20.00+	-	New Rochelle		
1	-	\$59,179,000	20.00+	-	Atlanta		
1	-	\$49,748,000	20.00+	-	Phoenix		
1	-	\$42,780,000	20.00+	-	Sunnyvale		
1	-	\$40,000,000	20.00+	-	Castle Rock		
1	-	\$36,725,000	20.00+	-	Atlanta		
1	-	\$35,325,000	20.00+	-	Newport News		
1	-	\$30,105,000	20.00+	-	Raleigh		
1	-	\$28,903,000	20.00+	-	Durham		
1	-	\$28,808,000	20.00+	-	Everett		
1	-	\$26,467,000	20.00+	-	Pinole		
1	-	\$22,949,000	20.00+	-	Florissant		
1	-	\$22,298,000	20.00+	-	West Covina		
1	-	\$21,760,000	20.00+	-	Riverview		
1	-	\$19,198,000	15.00 - 20.00	-	West Des Moines		
1	-	\$18,785,000	15.00 - 20.00	-	Chandler		
1	-	\$18,339,000	15.00 - 20.00	-	Greenwood		
1	-	\$16,125,000	15.00 - 20.00	-	Southfield		
1	-	\$13,585,000	10.00 - 15.00	-	Louisville		
1	-	\$12,805,000	10.00 - 15.00	-	Louisville		
1	-	\$11,520,000	10.00 - 15.00	-	Chandler		
1	-	\$8,710,000	8.50 - 10.00	-	Indianapolis		
1	-	\$8,385,000	7.00 - 8.50	-	Carmel		
1	-	\$2,200,000	2.00 - 3.00	-	Hanford		

1 - 24 of 24

[Export to Excel](#)

Figure 14 - Saved Custom Deal Reports

The default view of the custom report screen ("Primary Report" in the Saved Reports dropdown menu above) provides a list view of information for each loan in the selected deal. Content can be customized by adding/removing columns, using filters, applying custom formatting, sorting the list, or creating custom aggregate fields.

The chart can be displayed using 'Chart' option from the Action as shown in the example below, the user selected to aggregate and display the aggregate current balance by state.

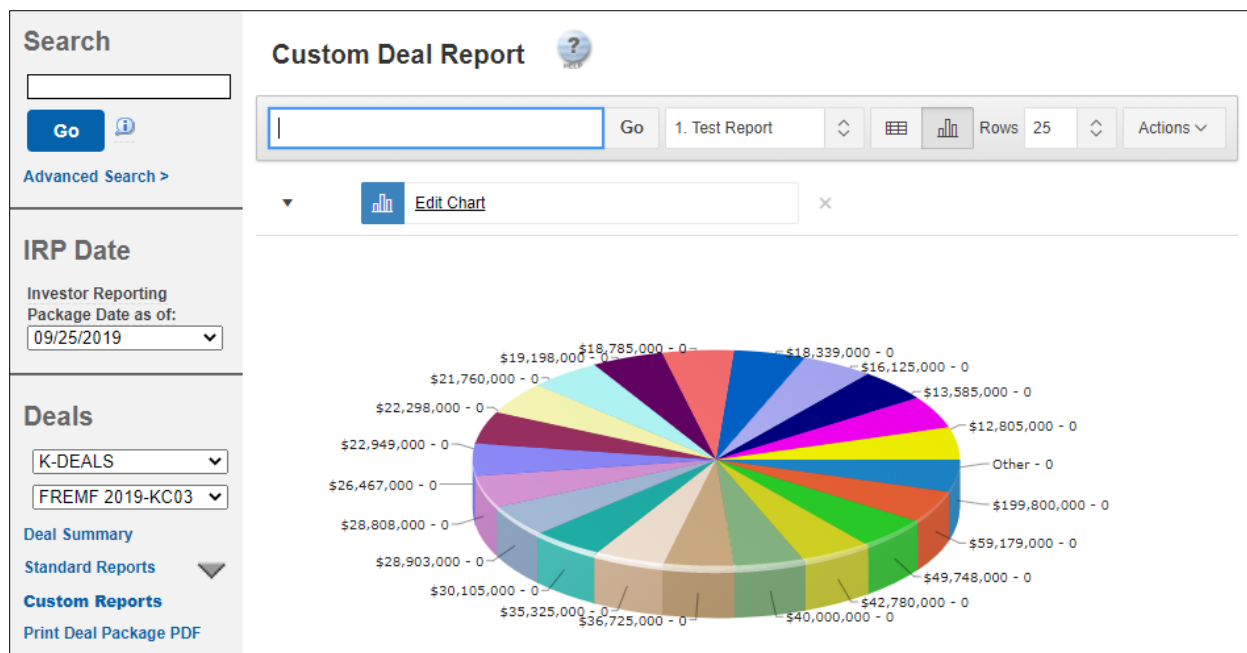


Figure 15 - Example of User Defined Chart Custom Report

## 21.6 Print Deal Package

Print Deal Package allows user to print or save a PDF file consisting of all of the Standard Reports.

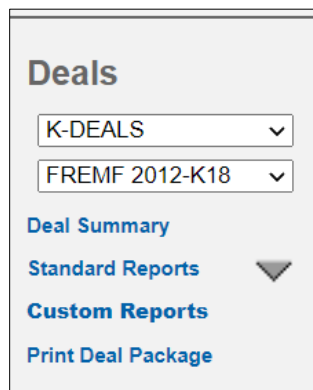


Figure 16 – Print Deal Package Menu

## 21.7 Portfolio Reports

For portfolio reports, the user must first build a portfolio by selecting one or more bond classes from one or more deals. Portfolios are user-specific – other users cannot see another user portfolio.

For both deals and portfolios, users can build and save their custom reports; these reports are not visible to other users.

User-defined portfolios and saved custom reports will be available during subsequent sessions.

**Note:** MSIA application also provides detailed information regarding individual loans and properties. However, to reach detailed information about the loans and properties users must first select one of the following reports and navigate from

these reports to the loan and property detail:

- Deal Summary
- Portfolio Summary
- Top 15 Loan List (from either Deal or Portfolio menus)
- Custom Reports

## 22 Building a Portfolio

The Default Portfolio is a portfolio made up of all active Deals. It can be used as a quick way to see all of the loans in the deals. It can also be used as a starting point in creating a custom portfolio. Once Default Portfolio is selected, all the features pertaining to building and using a portfolio described below will apply.

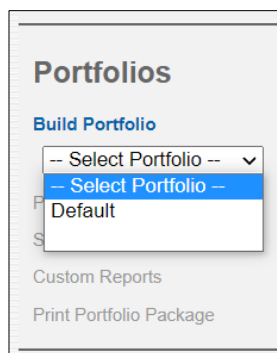


Figure 17 – Portfolio Selection and Build Portfolio Menu

Copy button provides ability to copy an existing portfolio. This allows a user to create a base portfolio and then copy it, make changes and then analyze the effect of the changes. Once a portfolio is copied, all of the features pertaining to building and using a portfolio described below will apply.

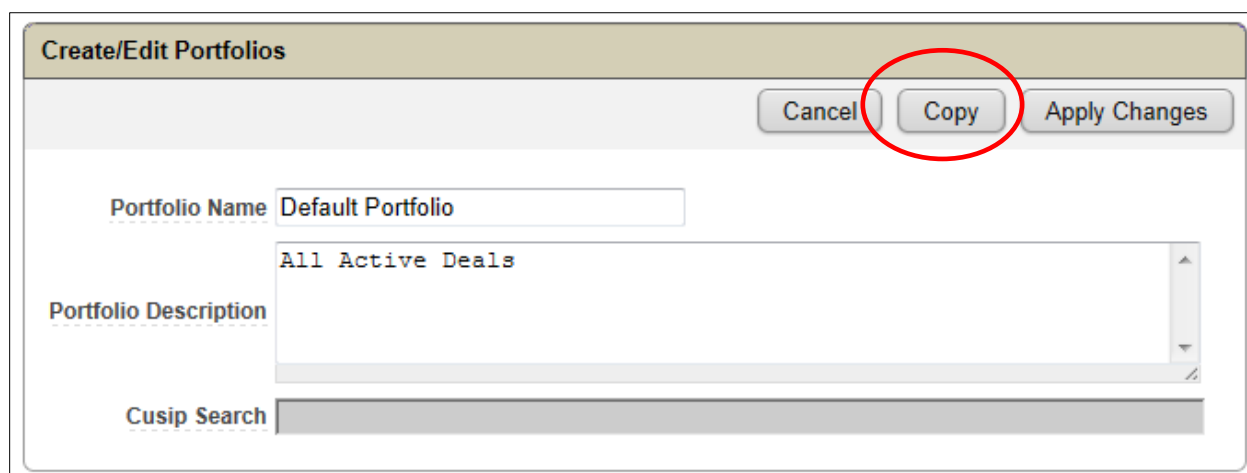


Figure 18 – Copy Portfolio

The user can create a new portfolio by clicking on the 'Create' button on the 'Build Portfolio'

screen.

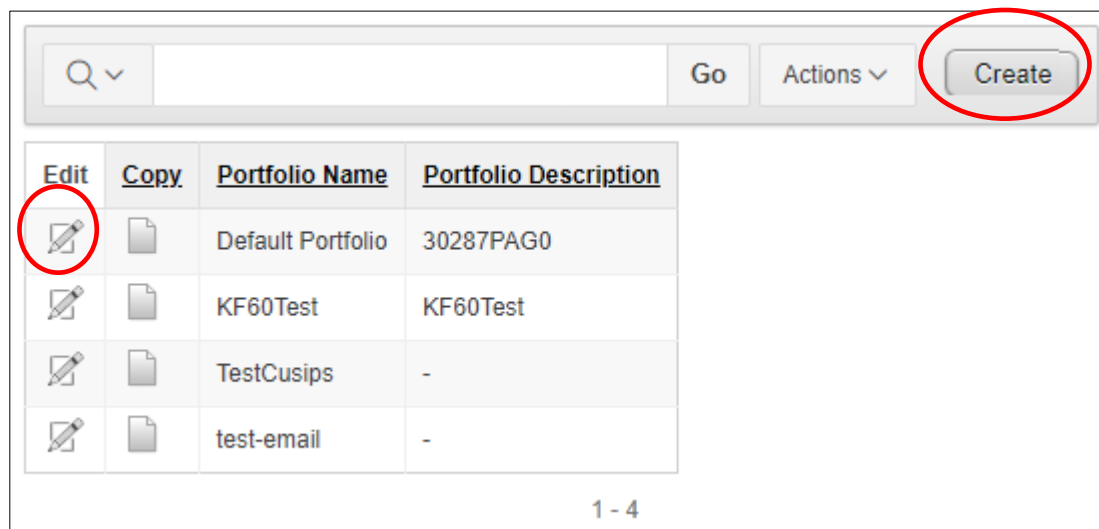
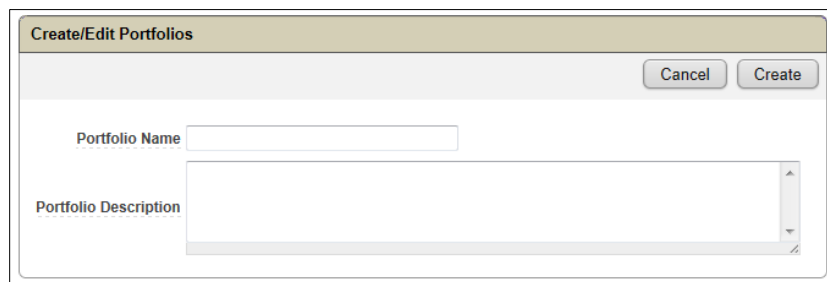


Figure 19 - Build Portfolio Screen (1 of 2)

Existing portfolio can be edited by clicking on the 'edit' icon for the existing portfolio record. When creating a new portfolio, the portfolio name is a mandatory field and portfolio description is an optional field.



Create/Edit Portfolios

Cancel Create

Portfolio Name

Portfolio Description

Figure 20 - New Portfolio

On clicking "Create" button, section to select CUSIP's will be enabled. The arrow navigation in the lower part of the screen is used to move bonds in and out of the portfolio.

The screenshot shows the 'Create/Edit Portfolios' window. At the top, there are buttons for 'Cancel', 'Copy', 'Delete', and 'Apply Changes'. Below these, the 'Portfolio Name' field contains 'Test'. The 'Portfolio Description' field is empty. A list of CUSIPs is displayed on the left, with a selection box around it. The CUSIPs listed are: FREMF 2009-K3 A-1 31398E2B9, FREMF 2009-K3 A-1 12621CAA5, FREMF 2009-K3 A-2 31398E2C7, FREMF 2009-K3 A-2 12621CAB3, FREMF 2009-K3 A-3 12621CAC1, FREMF 2009-K3 A-3 31398E2D5, FREMF 2009-K3 A-4 12621CAE7, FREMF 2009-K3 A-4 31398E2E3, FREMF 2009-K3 A-5 31398E2F0, FREMF 2009-K3 A-5 12621CAF4, FREMF 2009-K3 A-6 31398E2G8, FREMF 2009-K3 A-6 12621CAG2, FREMF 2009-K3 A-AB 31398E2H6, FREMF 2009-K3 A-AB 12621CAD9, and FREMF 2009-K3 A-X1 12621CAH0. To the right of the list is a large empty box for the portfolio's contents, with arrows indicating movement between the list and the box.

**Figure 21 - Select one or more bonds from the list**

Spreadsheet with bond data from excel can be pasted into the provided text box on the 'Create a Portfolio' screen. The user must verify the bond data consists of at a minimum the CUSIP ID, and optionally, DEAL and CLASS. Section to select CUSIP's will be enabled and the arrow navigation can be used to move bonds in and out of the portfolio. 'Apply Changes' button once clicked will save the user portfolio.

The screenshot shows the 'Create/Edit Portfolios' window. At the top, there are buttons for 'Cancel' and 'Create'. Below these, the 'Portfolio Name' field contains 'Upload CUSIP Test Portfolio'. The 'Portfolio Description' field is empty. Below the description field is a section titled 'Portfolio Upload'. It contains a text box with the following text: 'Copy and paste CUSIP numbers, and optionally DEAL and CLASS from excel into the textbox below. Make sure each column has a label in the first row for CUSIP, DEAL and CLASS.' Below this text box is a list of CUSIPs: CUSIP, 30290DAB3, 30290DAD9, 30290DAN7, 30290DAQ0, 30290DAS6, 30290DAU1, 30290DAW7, 30290DAF4, 30290DAJ6, 30290DAL1, and 30290DAH0. To the left of the list is a label 'Copy/Paste/Type'.

**Figure 22 – Paste Spreadsheet Bond Data from Excel**

## 22.1 Portfolio Summary Screen

Portfolio Summary screen provides a summary of information related to the bonds selected for a given portfolio and information related to the collateral of any associated deals. The portfolio summary screen includes a 'Portfolio Summary' section, which includes information for the selected bonds in the portfolio only; this section does not include information for other bonds in the same deal as those bonds selected.

Summary																		All Loans									
Collapse All																		Test PORTFOLIO SUMMARY									
Deal	Class	CUSIP	Original Balance (MM)	Current Balance (MM)	Factor	Coupon	Coupon Type	Credit Enhancement		Current Ratings #1	Current Ratings #2	Cum Bond Loss		Accum Interest Shortfall (MM)	Grntd												
								Secur	Current			Amt (MM)	% of Orig														
FREMF 2012-K19																											
FREMF 2012-K19	A-1	30290MAB3	\$193.5	\$13.0	6.7011%	1.4590%	Fixed Rate			15.250%	17.770%	AAA*	AAA	\$0.0	0.00%	\$0.0	Y										
Deal	Class	CUSIP	Original Balance (MM)	Current Balance (MM)	Factor	Coupon	Coupon Type	Secur	Current	Current Ratings #1	Current Ratings #2	Amt (MM)	% of Orig	Accum Interest Shortfall (MM)	Grntd												
																		(*) Denotes rating at time of issuance.									
TOP 15 LOANS (Out of 79 loans)																											
Deal	Property Name	Cut-off Date Loan Balance (MM)	Current Loan Balance (MM)	Current % of deal	Note Rate	Orig. Amort. DSCR***	Most Recent DSCR	Preced. FY DSCR	2nd Preced. FY DSCR	Cut-off Date LTV	Occup. Rate	Occup. Source	Multifamily Property Subtype	City	State	Dis. Status	Paid Thru Date	# Times Known Del. 12 months	# Times Known Del. Loan Life	Most Recent Value (MM)							
FREMF 2012-K19	Brooklyn Gold	\$107.0	\$96.2	8.8%	4.010%	1.29		1.07	1.09	64.3%	96.0%	SECOND PRECEDING	Mid Rise	Brooklyn	NY	Current	06/01/2019	0	0	\$166.3							
FREMF 2012-K19	The Cops Factory	\$53.7	\$46.9	4.3%	4.330%	1.30		1.49	1.46	79.7%	95.0%	SECOND PRECEDING	Mid Rise	Pittsburgh	PA	Current	06/01/2019	0	0	\$69.4							
FREMF 2012-K19	Aspen Place	\$36.3	\$34.9	3.2%	4.210%	1.26			1.60	73.9%	93.0%	SECOND PRECEDING	Garden	Aurora	IL	Current	06/01/2019	0	0	\$63.3							
FREMF 2012-K19	Bronx Park East	\$34.7	\$30.0	2.7%	4.080%	1.39				73.4%	100.0%	ORIGINAL	Mid Rise	Bronx	NY	Current	06/01/2019	0	0	\$47.2							
FREMF 2012-K19	The Massachusetts House	\$28.5	\$27.3	2.5%	4.340%	1.25				61.7%	99.3%	ORIGINAL	High Rise	Washington	DC	Current	06/01/2019	0	0	\$0.0							
FREMF 2012-K19	The Briarcliff City Apartments	\$28.9	\$27.2	2.5%	3.970%	1.45				65.0%	97.0%	ORIGINAL	Mid Rise	Kansas City	MO	Current	06/01/2019	0	0	\$0.0							
FREMF 2012-K19	The Madrid Apartments	\$28.0	\$26.8	2.5%	3.750%	1.30		1.60	1.84	71.8%	94.0%	SECOND PRECEDING	Garden	Los Angeles	CA	Current	06/01/2019	0	0	\$39.0							
FREMF 2012-K19	Reveille Ranch	\$29.6	\$25.8	2.4%	4.400%	1.41		0.72	0.91	73.9%	64.0%	SECOND PRECEDING	Student	Bryan	TX	Current	06/01/2019	0	0	\$46.1							
FREMF 2012-K19	Aspen Heights	\$27.0	\$25.1	2.3%	4.560%	1.35		1.65	1.56	74.0%	99.0%	SECOND PRECEDING	Student	San Marcos	TX	Current	06/01/2019	0	0	\$36.5							
FREMF 2012-K19	Crescent Ridge Apartments	\$26.6	\$24.0	2.2%	4.140%	1.30				75.0%	93.3%	ORIGINAL	Garden	Henderson	NV	Current	06/01/2019	0	0	\$0.0							
FREMF 2012-K19	Hampton Bay	\$25.0	\$22.6	2.1%	4.210%	1.25				78.8%	93.1%	ORIGINAL	Garden	Kent	WA	Current	06/01/2019	0	0	\$0.0							

Figure 54 - Portfolio Summary (1 of 2)

The portfolio summary page includes a list of the top 15 loans, based on the total universe of loans associated with **any** deals for which **any** bonds have been selected for inclusion within this portfolio. Portfolio Summary Screen includes delinquency information for the portfolio. Clicking "Delinquency Report" navigates to the Standard Delinquency Report for the Portfolio. Clicking on the individual property names, navigates to the loan/property detail for each loan.

## 22.2 Standard Portfolio Reports

The available Standard Portfolio reports are the same as the Standard Deal reports. Below is a list of the available reports and the section in this document where they are described. If you are reviewing this document on-screen, you can hold the Ctrl key down and click the reference to jump to the document section.

- All Loan Report –All Loans Report
- Loan Periodic – Loan Periodic
- Property Detail – Property Detail
- Top 15 Loans – Top 15 Loans
- DSCR Stratification – DSCR Stratification
- Top 15 MSAs – Top 15 MSAs
- Property Subtype – Property Subtype
- LTV Stratification – LTV Stratification



- Note Rate Stratification – Note Rate Stratification
- Occupancy Range – Occupancy Range
- Amortization Type – Amortization Type
- Year Built Range – Year Built Range
- Delinquencies – Delinquencies

## 22.3 Custom Portfolio Reports

The functionality and features of the Custom Portfolio Reports are the same as that of the Custom Deal Reports, with the exception of report titling. Refer to section 8.6.4, , for a complete description of functionality and features of custom reports.

TEST PORTFOLIO SUMMARY																	
Collateral	Deal	Class	CUSIP	Original Balance (\$M)	Current Balance (\$M)	Factor	Coupon	Coupon Type	Credit Enhancement		Cum Bond Loss (\$M)	Accrual Interest (\$M)	Grnd				
									Secur	Current	Current Ratings #	% of Orig					
FREM 2010 K3	FREM	2010K3	A-2	302010AAA1	\$710	\$713	0.471144	4.000%	Fixed Rate	12.750%	17.500%	N/A	50.0	0.00%	50.0	V	
									WAC	Pass	N/A	N/A	50.0	0.00%	50.0	N	
									Intangible Only	0.000%	0.000%	N/A	50.0	0.00%	50.0	N	
									Fixed Rate	Residual	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
									WAC	DO	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
FREM 2010 K4	FREM	2010K4	A-1	302010AB1	\$173	\$173	0.0000%	4.000%	Fixed Rate	13.125%	13.424%	AAA	AAA	50.0	0.00%	50.0	V
									Fixed Rate	12.000%	12.750%	N/A	AAA	50.0	0.00%	50.0	N
									Fixed Rate	12.000%	12.750%	N/A	AAA	50.0	0.00%	50.0	N
									Fixed Rate	Residual	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
									Fixed Rate	DO	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
FREM 2011 K11	FREM	2011K11	A-1	302011AB1	\$121	\$121	0.0000%	4.000%	Fixed Rate	12.875%	13.490%	AAA	AAA	50.0	0.00%	50.0	V
									Fixed Rate	12.000%	12.750%	N/A	AAA	50.0	0.00%	50.0	N
									Fixed Rate	12.000%	12.750%	N/A	AAA	50.0	0.00%	50.0	N
									Fixed Rate	Residual	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
									Fixed Rate	DO	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
FREM 2011 K12	FREM	2011K12	A-2	302012AB1	\$144	\$145	0.471144	4.000%	Fixed Rate	12.750%	13.250%	N/A	50.0	0.00%	50.0	V	
									WAC	Pass	N/A	N/A	50.0	0.00%	50.0	N	
									Intangible Only	0.000%	0.000%	N/A	50.0	0.00%	50.0	N	
									Fixed Rate	Residual	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
									Fixed Rate	DO	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
FREM 2012 K13	FREM	2012K13	A-1	302012AB1	\$120	\$121	1.412114	4.000%	Fixed Rate	15.250%	17.815%	AAA	AAA	50.0	0.00%	50.0	V
									Fixed Rate	12.000%	12.750%	N/A	AAA	50.0	0.00%	50.0	N
									Fixed Rate	12.000%	12.750%	N/A	AAA	50.0	0.00%	50.0	N
									Fixed Rate	Residual	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
									Fixed Rate	DO	0.000%	0.000%	N/A	50.0	0.00%	50.0	N
1) Denotes rating at time of issuance																	

Custom Portfolio Report																			
Go Rows 25 Actions																			
2nd Preceding FY Stock Tick	Actual Balance	Balance Range	Balloon	City	Current CUSIP	Current Bal Rank	Current Ending Stock Balance	Current Loss	# Properties	Cut-off Date Last Balance	Days Since Defaulted	Deal	Distribution Date	DOCR (NCF)	DOCR Range	Dis Status	Dis Status Text	Fin Status of Loan	Group ID
1.750	\$112,385,000	20.0+	Y	Long Island City	13.3	1	\$112,385,000	\$112,385,000	1	\$132,333,434	-	FREM 2011-K10	09/25/2016	1.800	1.80 - 1.89	Current	Current	0	-
1.690	\$65,938,050	20.0+	Y	Brooklyn	8.8	1	\$65,938,050	\$65,938,050	1	\$107,000,000	-	FREM 2011-K19	09/25/2016	1.870	1.80 - 1.89	Current	Current	0	1
-	\$85,913,389	20.0+	Y	New York	9.0	1	\$85,913,389	\$85,913,389	-	\$102,973,587	-	FREM 2011-K11	09/25/2016	1.550	1.50 - 1.59	Current	Current	0	-

### Figure 23 - Custom Portfolio Reports

## 22.4 Portfolio Package

Print Deal Package allows user to print or save a PDF file consisting of all of the Standard Reports listed in Section 8.6.8 excluding All Loans Report.

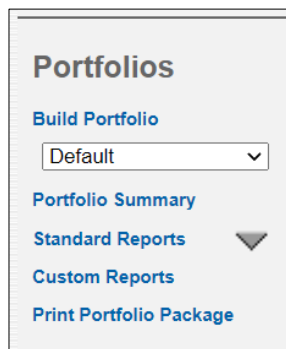


Figure 58 – Print Portfolio Package PDF Menu

## 23 Documents

Bulk download is the only functionality that is available under Documents section.

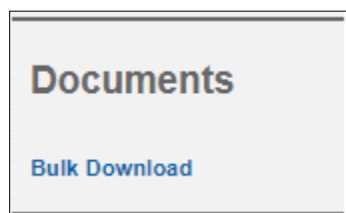


Figure 63 – Doc Management

## 24 Bulk Download

The system can do a bulk download of all documents, filtered by Deal, Document Type, Submission Year, Quarter and As of Date.

Bulk Download Documents

Deal

☒ All Deals
 ☐ Specific Deals

Loan Numbers

☒ All Loan Numbers
 ☐ Specific Loan Numbers

Loan Document Type

☐ Property Operating Statements
 ☐ Property Rent Rolls
 ☐ Property Inspections
 ☐ Miscellaneous or other documents
 ☐ OSAR/NOI
 ☐ Property Inspection Photo and Rent Roll

Submission Year

Choose Year ▼

Quarter

Choose Quarter ▼

As of Date

ALL ▼

Search

Reset

**Figure 65 – Bulk Download**

In order to download bulk documents for specific deal and loan number the following needs to be selected:

**Bulk Download Documents**

Deal ☐ All Deals ☒ Specific Deals

Loan Numbers ☐ All Loan Numbers ☒ Specific Loan Numbers

Loan Document Type

- ☐ Property Operating Statements
- ☐ Property Rent Rolls
- ☐ Property Inspections
- ☐ Miscellaneous or other documents
- ☐ OSAR/NOI
- ☐ Property Inspection Photo and Rent Roll

Submission Year

Quarter

As of Date

Deal

- FREMF 2016-KBAM
- FREMF 2015-KJ02
- FREMF 2016-KJ03
- FREMF 2016-KJ04
- FREMF 2016-KJ05
- FREMF 2016-KJ07
- FREMF 2016-KJ08
- FREMF 2016-KJ09

Loan Number

- 968735029
- 948842970
- 948838981
- 932899838
- 932790054
- 932787266
- 932655920
- 932611257

FREMF 2018-KI01

FREMF 2018-KI02

FREMF 2018-KI03

FREMF 2015-KJ01

942574443

942573358

942572289

933008937

Search button returns the documents based on the filter criteria and Download button allows user to download the documents.

**Bulk Download Documents**

Deal ☐ All Deals ☒ Specific Deals

Loan Numbers ☐ All Loan Numbers ☒ Specific Loan Numbers

Loan Document Type

- ☒ Property Operating Statements
- ☒ Property Rent Rolls
- ☒ Property Inspections
- ☒ Miscellaneous or other documents
- ☒ OSAR/NOI
- ☒ Property Inspection Photo and Rent Roll

Submission Year

Quarter

As of Date

Deal

- FREMF 2016-KBAM
- FREMF 2015-KJ02
- FREMF 2016-KJ03
- FREMF 2016-KJ04
- FREMF 2016-KJ05
- FREMF 2016-KJ07
- FREMF 2016-KJ08
- FREMF 2016-KJ09

Loan Number

- 968735029
- 948842970
- 948838981
- 932899838
- 932790054
- 932787266
- 932655920
- 932611257

FREMF 2018-KI01

FREMF 2018-KI02

FREMF 2018-KI03

FREMF 2015-KJ01

942574443

942573358

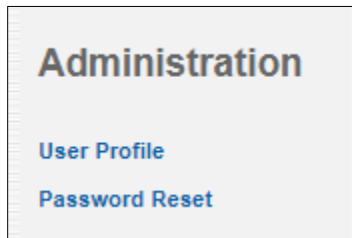
942572289

933008937

<input type="checkbox"/>	File Name	Loan Id	Doc Type	Deal Name	Asofdate	Year	Quarter
<input type="checkbox"/>	942573358_Inspection_123118_S2018.xlsx	942573358	Property Inspections	FREMF 2018-KI02	12/31/2018	2018	0
<input type="checkbox"/>	942573358_AIF_Photos_123118_S2018.pdf	942573358	Property Inspection Photo and Rent Roll	FREMF 2018-KI02	12/31/2018	2018	0
<input type="checkbox"/>	942573358_FS_093018.pdf	942573358	Property Operating Statements	FREMF 2018-KI02	09/30/2018	2018	3
<input type="checkbox"/>	942573358_RR_093018.pdf	942573358	Property Rent Rolls	FREMF 2018-KI02	09/30/2018	2018	3
<input type="checkbox"/>	942573358_QCREFCMF_113018_S2018Q3.xlsx	942573358	OSAR/NOI	FREMF 2018-KI02	11/30/2018	2018	3

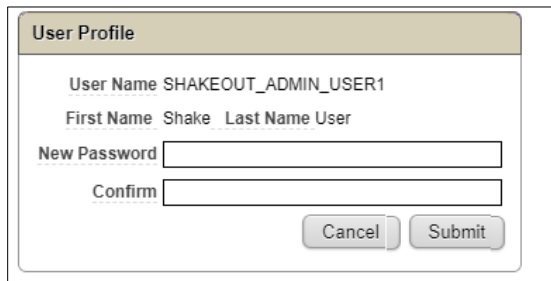
## 25 Administration

Administration section enables users to edit User Profile and Password on the Homepage of the application.



### 25.1 Password Reset

The Password reset button opens screen to create new password for the user to login into the application.

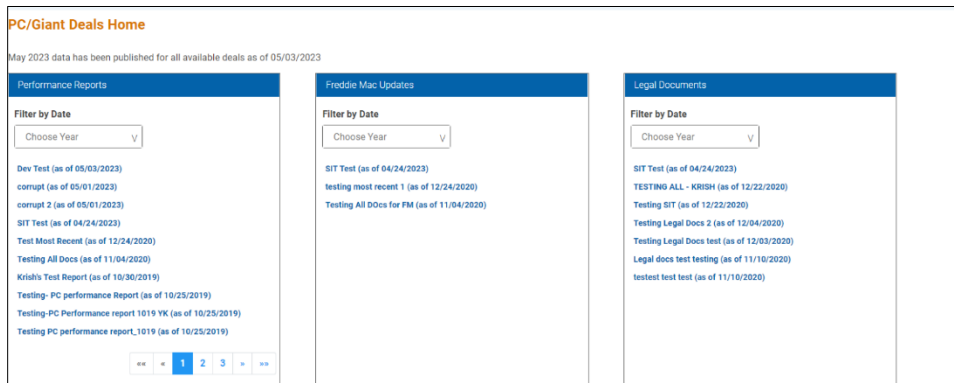


A screenshot of the 'User Profile' form. The form has a title bar 'User Profile'. Below it, there are fields for 'User Name' (SHAKEOUT\_ADMIN\_USER1), 'First Name' (Shake), and 'Last Name' (User). There are also fields for 'New Password' and 'Confirm'. At the bottom right, there are 'Cancel' and 'Submit' buttons.

## 26 PC/Giant Deals

### 26.1 Navigation Overview

Application navigation provides capability to perform simple search at the top of every PC/Giant deals screen as well as navigate to the CRT and Structured Deals and Profile portion of the application. The homepage contains PC/Giant performance reports and Job Aid section.



## 26.2 Quick Search

Quick search allows the user to enter one or more CUSIP or Pool Numbers to return deals that match the criteria entered. The Search Results screen is displayed below.

Quick search by CUSIP:

or Pool Number:

Go

Enter one or more CUSIPs or Pool Numbers above, separated by commas (ex: WA1234, WA5678).  
 Want to search by Security Statuses, Pool Type, Interest Type, Interest Accruals, Settlement Date, Issuance UPB Range, and/or Coupon Range? [Advanced Search](#)

[PC/Giant Deals Home](#)

May 2023 data has been published for all available deals as of 05/03/2023

The deal data for search results can be downloaded into EXCEL using the “Export to File” button present on the bottom of the results.

3132XHKU7	WN3006	2.86%
3132XFDJ4	WN1004	2.55%
3132XFDM7	WN1007	2.55%
3132XFDN5	WN1008	2.58%
3132XGGU4	WN2010	2.2%

<< First

< Prev

1

2

3

4

...

> Next

>> Last

Export to File

New Search

## 26.3 Advanced Search

Advanced Search allows the user to search based on Security Status, Product Types, Prefix, Interest Types, Interest Accruals, Settlement Date, Issuance UPB and Coupon Range.

PC/Giant Information System

Advanced Search

Security Statuses:

☐ Active
 ☐ In Active
 ☐ Paid Off

Product Types:

☐ Multi PCs
 ☐ Giants

Prefixes:

☐ WA
 ☐ WE
 ☐ WG
 ☐ WN
 ☐ WR
 ☐ WV

Interest Types:

☐ Fixed
 ☐ Floating

Interest Accruals:

☐ 30/360
 ☐ Actual/360

Lien Position:

☐ First Mortgage
 ☐ Second Mortgage
 ☐ Subordinate

ESG:

☐ Green Advantage
 ☐ Social Bond

Settlement Dates:

to

Issuance UPB Ranges:

\$0 to  \$750,000,000

Coupon Ranges:

0% to  10%

Search

## 26.4 PC Deal Details

After user has searched for and selected a specific deal, the user will be able to see loan, security, and property level data of the deal. At first, the user will only see a portion of the loan and security level. The user can expand each of those sections to see a more detailed section.

Multifamily PC  
WA1601

IRP Date: 10/25/2019

CUSIP 3132WVAB0	PC Coupon 2.44%	Current UPB \$10,235,665.25	Maturity Date 03/01/2026	Rate Type	Interest Accrual Method Actual/360	Loans 1	<a href="#">Print Report &gt;</a> <a href="#">Download to Excel &gt;</a>
--------------------	--------------------	--------------------------------	-----------------------------	-----------	---------------------------------------	------------	---

Security Information

View All Security Details >

Issuance	Current
Prefix WA	Security Factor Date 09/01/2019
Security Identifier (Pool Number) WA1601	Payoff Date
CUSIP 3132WVAB0	
Issue Date 07/01/2016	<b>Balance &amp; Rate</b>
Maturity Date 03/01/2026	Investor Security UPB \$10,255,029.89
Payment Delay Days 55	Security Factor 0.93796892
Security Status Indicator Active	WA Current Net Interest Rate (PC Coupon) 2.521333252

Loan Information


View All Loan Details >

Loan Number: 932421342	Loan Characteristics
Expected Loan UPB (\$)	Note Date 02/29/2016
Mortgage Coupon (%) 3.55	Maturity Date 03/01/2026
Cut-Off Date Balance \$10,933,230	Balloon N
Remaining Term (in Months) 76	Original Amortization Term (in Months) 360
Seasoning (in Months) 44	Original Loan Term (in Months) 120
Seller Name Keybank National Association	Most Recent Value \$16,000,000
Seller Address Overland Park, KS	Most Recent Valuation Date 12/09/2015

Property Information

Silver Ridge

Address	Silver Ridge, Roseville, CA 95661
MSA	
Type	MF
Sub-Type	Senior Apts
Units	156
Low Income Units	
Very Low Income Units	
Current Occupancy %	99.4
Current Occupancy Date	07/23/2019
Year Built	2002
Green Advantage	N/A
Affordability Description	



The Deal Details can be exported to Excel using the “Download to Excel” button located on the deal banner. The Deal Details can also be printed by selecting the “Print Report” button located on the deal banner.

At the bottom of the Deal Details, there is a Documents & Downloads section where

deal-specific documents will be located such as the Exhibit A-1. The user can either download a specific document by clicking the name of the document or can download all of them by selecting “Download All Documents”.

Documents & Downloads

Issuance

Exhibit A-1

Download All Documents

## 26.5 Giant Deal Details

After the user has searched for and selected a specific Giant deal, the user will be able to see security level and underlying collateral data of the deal. The user can expand the security section to see additional fields.

Giant PC WG0002										RP Date: 03/27/2023										
CUSIP 3132XXXX12	Security Coupon 5.04%	Current UPB \$40,328,000	Maturity Date 12/01/2032	Rate Type Floating	Interest Accrual Method Actual/360	Securities 5	ESG Social	Print Report » Download to Excel »												
Security Information																				
View All Security Details »																				
Issuance				Current																
Prefix	WG			Security Factor Date							04/01/2023									
Security Identifier (Pool Number)	WG0002			Payoff Date																
Issue Date	03/01/2023																			
Payment Delay Days	55			Balance & Rate																
Security Status Indicator	Active			Current Investor Security UPB							\$40,328,000									
				Current Security Factor							1									
				Current WIA Current Net Interest Rate (Security Coupon)							5.145									
				Current WIA Interest Rate (WIAIC) %							6.18									
Collateral Information																				
Pool	CUSIP	Prefix	Security Type	Status	Issuance Date	Maturity Date	Contributed Orig UPB	UPB at Giant Issuance	Current UPB	Contributed %	Current Coupon	Current WAC	Current Margin	WA Orig Term	WA Rem Term	WA Orig Amort Term	WA Orig IO Term	Prepayment Provision	Social	Green
WV0021	3132VBAW6	WV	MULTI-PC	Active	03/01/2023	12/01/2032	\$40,328,000	\$40,328,000	\$40,328,000	100.00	5.145	6.18	0.515	120	116	360	60	L(23) 1%(93) 0(4)	Y	Y
WV2001	3132VAGJ4	WV	MULTI-PC	Active	10/01/2020	06/01/2030	\$33,348,068.91	\$34,774,972	\$31,962,348.9	95.61	3.521	6.339	0.38	120	92	360	0	L(11) 1%(105) 0(4)	Y	Y
WV0022	3132VBAK4	WV	MULTI-PC	Active	03/01/2023	12/01/2032	\$21,524,000	\$21,524,000	\$21,524,000	100.00	5.92	6.18	0.69	120	116	360	60	L(23) 1%(93) 0(4)	Y	Y
WV0023	3132VBAY2	WV	MULTI-PC	Active	03/01/2023	12/01/2032	\$46,198,000	\$46,198,000	\$46,198,000	100.00	5.92	6.18	0.69	120	116	360	60	L(23) 1%(93) 0(4)	Y	Y
WG0001	3132XXXXX	WG	GIANT-PC	Active	01/01/2020	10/01/2035	\$183,176,239.1	\$12,750,000	\$179,898,349.15	1,436.68	2.71	4.37		192	150	420	24			N

The Deal Details can be exported to Excel using the “Download to Excel” button located on the deal banner. The Deal Details can also be printed by selecting the “Print Report” button located on the deal banner.

At the bottom of the Deal Details, there is a Documents & Downloads section where deal-specific documents will be located.

Documents & Downloads

Offering Circular Supplement – WG0002

## 26.6 PC/Giant Portfolio Management

User can create portfolios that contain PC/Giant Deals by clicking “Portfolios” on the nav bar. There are two ways of entering CUSIPs and/or Pool Numbers to a portfolio.

**PC/Giant Portfolio Summary Report**

Manage Portfolios

Portfolios		Create
Prachi Test	i [pencil] [trash]	
test	i [pencil] [trash]	
test test	i [pencil] [trash]	

Please refer to individual security pages for additional reporting on underlying collateral.

## Portfolio Creation Methods:

### 1) Clicking CUSIPs and/or Pool Numbers

**PC/Giant Portfolio Summary Report**

Manage Portfolios

Portfolios		Create
Prachi Test	i [pencil] [trash]	
test	i [pencil] [trash]	
test test	i [pencil] [trash]	

**Create/Edit Portfolios**

Name:

Description:

Want to copy/paste? ☐

Pool Numbers:

- WA0001
- WA0002
- WA0003
- WA0004
- WA0201
- WA0203
- WA0204
- WA0205

Selected Pool Numbers:

CUSIPs:

- 31326SCL2
- 3132ABCD E
- 3132VBAE6
- 3132VAGH8
- 3132W0AA0
- 3132W0AB8
- 3132W0AC6
- 3132W0AD4

Selected CUSIPs:

**Save** **Reset**

### 2) Pasting CUSIPs and/or Pool Numbers in a text box. NOTE: Must check the 'Want to copy/paste?' checkbox

**PC/Giant Portfolio Summary Report**

Manage Portfolios

Portfolios		Create
Prachi Test	i [pencil] [trash]	
test	i [pencil] [trash]	
test test	i [pencil] [trash]	

**Create/Edit Portfolios**

Name:

Description:

Want to copy/paste? ☒

Enter Pool Numbers or CUSIPs

**Save** **Reset**

User can Edit or Delete portfolios. To edit, user must click on the pencil icon inline with portfolio name in the left pane and then edit the portfolio on the right pane. To delete, user must click the trash can icon inline with the portfolio name in the left pane.



**PC/Giant Portfolio Summary Report**

Manage Portfolios

**Portfolios**

Create

Prachi Test

test

test test

**Create/Edit Portfolios**

Name

Description

Want to copy/paste? ☐

Pool Numbers

Selected Pool Numbers

CUSIPs

Selected CUSIPs

Save Reset

A user can click on the 'i' icon next to a Portfolio name to view the PC Portfolio Summary

**PC/Giant Portfolio Summary Report**

Manage Portfolios

**Portfolios**

Create

Prachi Test

test

test test

**Portfolio Summary - test test**

	Weighted Average	Minimum	Maximum
Original Balance	\$49,258,404.43	\$1,114,192	\$315,938,951
Current Balance	\$42,787,828.51	\$1,042,940.76	\$273,168,603.5
Factor	0.9179	0.86462465	0.94365546
Gross Coupon	5.2286	3.72	7
Security Coupon	4.1814	2.7	6.39
Amort Term	377	360	420
Rem Term	157	98	345
IO Term	1	0	12
Age	87	41	127
Occupancy %	97.33	90	100
Orig LTV	30.29	0	69
DSCR	1.6714	1.14	3.61
Number of Pools	7		
Number of Loans	7		
Number of Properties	15		
Number of Paid Off Pools	0		
Number of Green Pools	0		
Number of Social Bond Pools	0		

Export to File

Please refer to individual security pages for additional reporting on underlying collateral