



K-Deal® Program Overview

Investor Presentation

as of December 31, 2023



K-Deal® Program | Key Facts

As of December 31, 2023, we have securitized 26,246 loans totaling \$557.29 billion¹ through the K-Deal Program

Key Features

- K-Deals are backed by newly acquired mortgages underwritten to Freddie Mac's industry-leading underwriting standards
- Senior and interest-only classes are backed by Freddie Mac Guarantees
- NRSRO Ratings are acquired for our 7- and 10-year fixed-rate A-1, A-2 and X1 classes
- Guaranteed classes are Repo eligible

Benefits

- **Strong performance** of K-Deals, which are secured by assets with strong property fundamentals
- **Strong credit** underwritten to Freddie Mac's portfolio standards, plus the Freddie Mac guarantee
- **Call protection** associated with the prepayment features of defeasance, yield maintenance or static prepayment premiums
- **Liquidity** supported by expectations for repeatable and reliable issuance
- **Diversification** through pooled risk of many assets versus single-asset risk unless otherwise indicated
- **Servicing Standard** promotes transparency of Freddie Mac's servicing policy and protocols to the securitized servicing parties

¹ Excludes Value-Add (K-I00) Deal in which Freddie Mac is not the mortgage loan seller. K-I01 through K-I06 are excluded

K-Deal Mortgage Guidelines

The following are the general guidelines for Freddie Mac's Multifamily mortgage purchases that are intended for K-Deal securitization (subject to certain exceptions)

Property Type

- Origination requirements are focused on loans secured by occupied, stabilized and completed multifamily properties
- Limited amount of seniors housing, student housing, cooperative housing, military housing, manufactured housing communities (MHC) and Section 8 HAP contracts

Loan Terms

- Mortgages are fixed rate or floating rate
- Various loan terms including but not limited to 5-¹, 7- and 10-year terms generally with a maximum amortization of 30 years
- May contain initial interest-only (IO) periods
- Moderate exposure to full-term IO loans
- Full-term IO loans require higher initial amortizing debt service coverage ratio (DSCR) and lower loan-to-value (LTV) ratio
- Floating-rate mortgages are based on 30-day Average SOFR, generally require a third-party SOFR cap and are sized using a fixed rate equivalent
- Loans generally documented on Freddie Mac form loan documents, which may contain transaction-specific modifications

Borrowers

- Single-purpose entity (SPE) is required for all loans greater than or equal to \$5 million
- A carve-out guarantor is generally required
- Entity guarantors are acceptable but may require financial covenants or a material adverse change clause

¹ 5-year deal offering removed for Seniors Housing



K-Deal Mortgage Guidelines (continued)

Underwriting

- Effective gross income is generally calculated based on trailing three-months actual rent collections or the annualized current rent roll minus a minimum 5% vacancy rate subject to submarket data and actual rent collections
 - Operating expenses are generally calculated based on trailing 12 months
 - Real estate taxes and insurance are based on actual annual expenses
 - Property values are based on third-party appraisals and internal value confirmation
 - Replacement reserves are typically required and are generally equal to the greater of an engineer's recommendation or \$250/unit or \$50/pad for MHCs
 - Tax and insurance escrows are generally required
 - Third-party SOFR caps that expire prior to related mortgage maturity date are required to be replaced. Replacement cap funds are escrowed at 125% of replacement cost and are recalculated on either a semi-annual or annual basis
 - Third-party reports are required (e.g., Phase I ESA, property condition, zoning, etc.)
 - Property condition, Phase I and Zoning reports are required for all loans over \$20 million, and for loans below \$20 million, the property condition and Phase I reports may be combined
-

LTV and DSCR

- Maximum LTV of 80%, minimum DSCR of 1.25x (fixed rate) and 1.00x on the max capped interest rate for floating-rate loans
 - Shorter loan terms or underperforming markets, and specialty product types typically require adjustments
 - All loans require a maturity risk analysis
-

Supplemental Financing

- Eligible one year after origination of the first mortgage
 - Purchased by Freddie Mac from original lender under Freddie Mac's supplemental mortgage product
 - Lower of 80% LTV or maximum LTV per loan agreement and minimum amortizing DSCR of 1.25x (fixed) or 1.10x (floating, at cap)
 - Re-underwriting required based on current property performance, an updated appraisal, financials and Freddie Mac's credit policy
 - Monthly escrows for taxes, insurance and replacement reserves. If the first mortgage allowed for deferral of tax, insurance and replacement reserve escrows, the supplemental will trigger the collection of those escrows on the first mortgage
-

K-Deal Optigo® Lenders

Freddie Mac buys loans from a network of approved Multifamily lenders who have over 150 branches nationwide, substantial experience and established performance records

- The Freddie Mac approved Optigo lender network promotes quality originations and a high level of service to borrowers
- Our lenders must comply with our standards for both origination and servicing of multifamily loans, which includes meeting minimum financial requirements and undergoing satisfactory annual audits

Optigo Conventional Lenders

Arbor Agency Lending LLC	JLL Real Estate Capital LLC	PNC Bank, N.A.
Basis Investment Group LLC	JPMorgan Chase Bank, N.A.	Regions Bank
Berkadia Commercial Mortgage LLC	KeyBank, N.A.	Walker & Dunlop LLC
BWE	Lument Capital	Wells Fargo Bank, N.A.
Capital One N.A.	M&T Realty Capital Corporation	
CBRE Capital Markets Inc.	Newmark	
CPC Mortgage Company LLC	NewPoint Real Estate Capital LLC	
Grandbridge Real Estate Capital LLC	Northmarq Capital, LLC	
Greystone Servicing Company LLC	PGIM Real Estate	

Typical Issuance Timeline



K-Deal Placement Agents

Academy Securities Inc.*	Goldman Sachs & Co. LLC	Piper Sandler & Co.
AmeriVet Securities Inc.*	J.P. Morgan Securities LLC	PNC Bank, National Association
Bancroft Capital LLC *	Jeffries LLC	Robert W. Baird & Co. Incorporated
Barclays Capital Inc.	Loop Capital Markets LLC *	Samuel A. Ramirez & Co. Inc.*
BMO Capital Markets Corp.	Mischler Financial Group Inc.*	Santander US Capital Markets LLC
BofA Securities Inc.	Mizuho Securities USA LLC	Siebert Williams Shank & Co. LLC *
Brean Capital LLC	Morgan Stanley & Co. LLC	Stern Brothers & Co. *
Brownstone Investment Group LLC	Multi-Bank Securities Inc. *	Stifel Nicolaus & Co Inc.
Cantor Fitzgerald & Co.	NatAlliance Securities LLC	StoneX Financial Inc.
CastleOak Securities L.P. *	Nomura Securities International Inc.	Truist Securities Inc.
Citigroup Global Markets Inc.	Oppenheimer & Co. Inc.	UBS Securities LLC
Drexel Hamilton LLC *	Performance Trust Capital Partners LLC	Wells Fargo Securities LLC

* Freddie Mac engages Minority-, Diverse-, or Women-owned Businesses (MDWOBs), our diverse active broker-dealer network, on each of our transactions

Servicing Standard – Best-in-Class Service

The Freddie Mac Multifamily Servicing Standard aims to ensure best-in-class service through the life of the loan

Freddie Mac's *Multifamily Seller/Servicer Guide* is the foundation of the "Servicing Standard" referred to in each securitization Pooling and Servicing Agreement (PSA)

- The Servicing Standard promotes transparency of Freddie Mac's servicing policies and protocols to the securitized servicing parties

Freddie Mac surveils post-securitization loan servicing activity but is not a credit decision-maker

- Freddie Mac is the named servicing consultant in each PSA — standing by to share its credit philosophy if and when needed
 - In connection with such role, Freddie Mac created the Business Guidance Request process (commonly referred to as "What Would Freddie Do") where Freddie Mac will provide a written analysis of such credit philosophy in response to an inquiry by a Master Servicer and/or Sub-Servicer (Primary Servicer)

K-Deal Special Servicers

CW Capital Asset Management LLC	Newmark
Greystone Special Servicing	SitusAMC Special Servicing and Distressed Asset Management
KeyBank, N.A.	Torchlight Loan Services
LNR Partners LLC	Wells Fargo Bank, N.A.
Midland Loan Services LLC	

K-Deal Master Servicers

KeyBank, N.A.	Wells Fargo Bank, N.A.
Midland Loan Services LLC	Freddie Mac

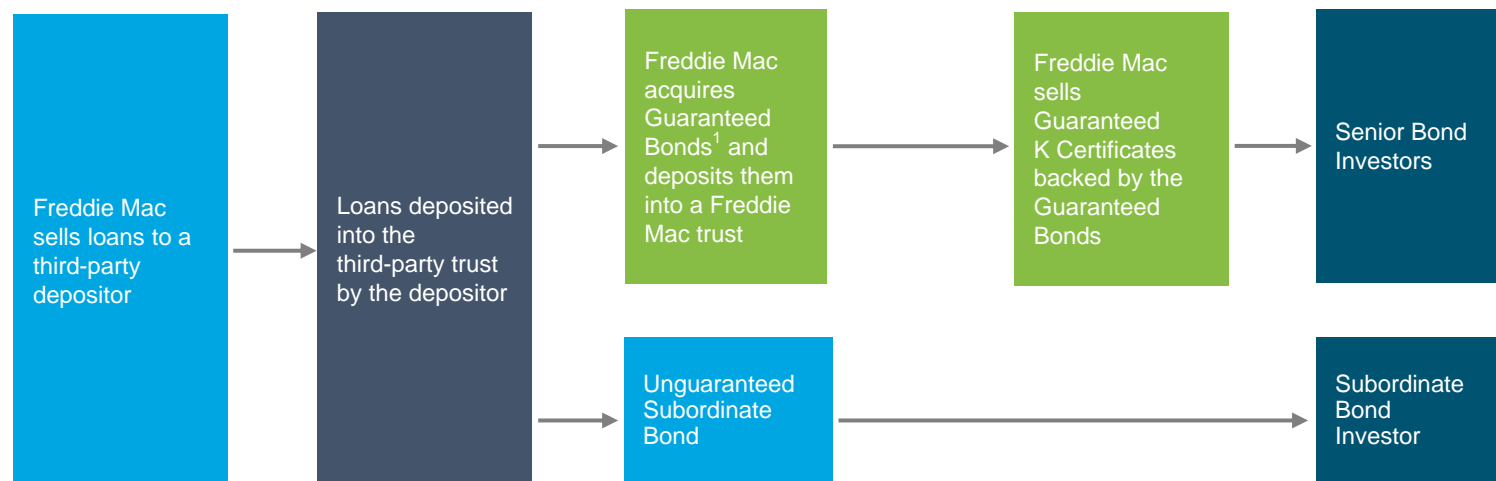
K-Deal Trustee / Certificate Administrator

Citibank, N.A.	Freddie Mac
Computershare Trust Company, N.A.	U.S. Bank Trust Company N.A.
Deutsche Bank Trust Company Americas	Wells Fargo Bank, N.A.
	Wilmington Trust, N.A.

Transaction Structure

Freddie Mac securitizes loans via the K-Deal program through the following steps:

- The loans are sold to a third-party depositor that places the loans into a third-party trust
- Private label securities backed by the loans are issued by the third-party trust
- Freddie Mac purchases and guarantees certain bonds (Guaranteed Bonds¹) issued by the third-party trust and securitizes these bonds via a Freddie Mac trust
- The resulting Freddie Mac guaranteed structured pass-through certificates (K Certificates®) are publicly offered via placement agents
- The subordinate bond are issued by the third-party trust and are privately offered to investors via placement agents



RELEVANT PARTIES/ENTITIES

Underlying Mortgage Loan Seller
Freddie Mac

Underlying Originators
Optigo Lender(s)

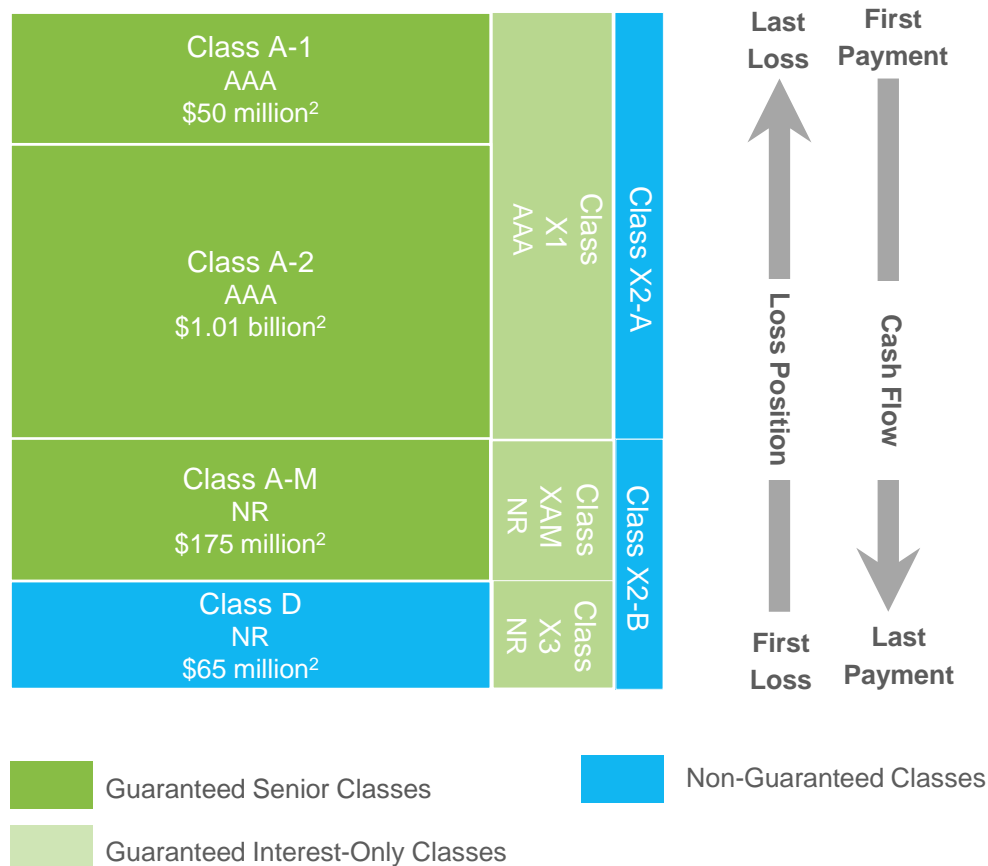
Underlying Master Servicer
Selected by Freddie Mac through bidding process

Underlying Special Servicer
Selected by subordinate bond investor in consultation with Freddie Mac

Underlying Trustee/Certificate Administrator
Selected by Freddie Mac through bidding process

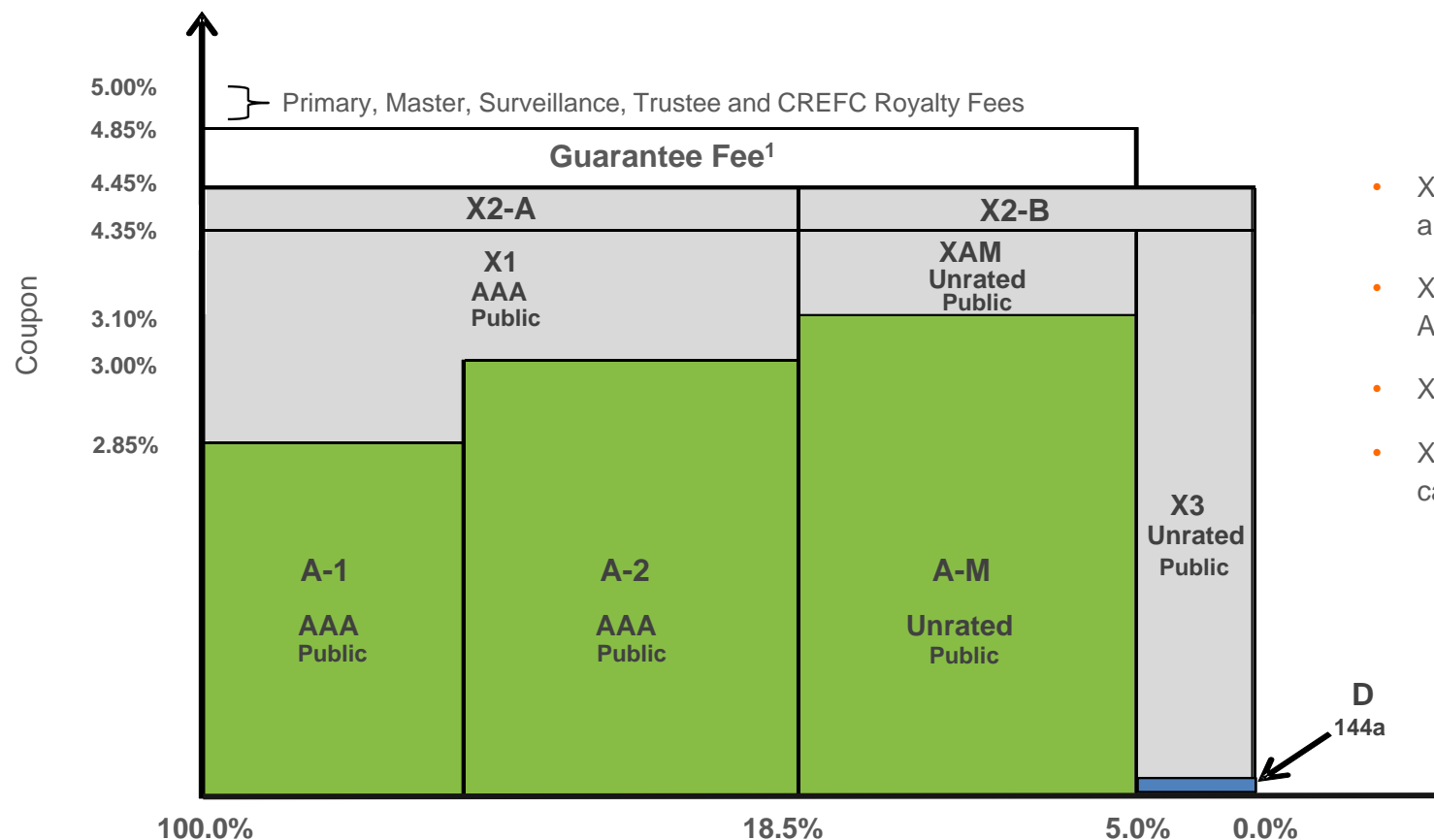
¹ Guaranteed Bonds include senior amortizing bonds as well as interest-only bonds derived from senior and subordinate P&I bonds

Sample K-Deal Subordination – Sequential Pay¹

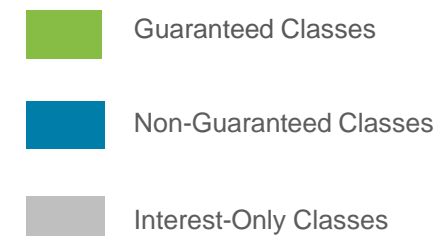


- Sequential pay structure is commonly used for fixed-rate K-Deals
- Principal collected is distributed sequentially, unless the total outstanding principal balance of the class A-M and D certificates is reduced to zero
- In the case of a default to the guaranteed class, the Freddie Mac guarantee will reimburse the A-1, A-2 and A-M class up to the loss reimbursement amount
- Losses on the underlying mortgage loans will be first allocated to the Class D Certificate until the outstanding principal balance has been reduced to zero

Sample K-Deal Fixed-Rate Coupon and Subordination



- X1 is a guaranteed interest-only class notional to the A-1 and A-2 class
- XAM is a guaranteed interest-only class notional to the A-M class
- X3 is notional to the class D certificates
- X2-A and X2-B are 10 basis point strips across the capital stack and retained by the B-piece buyer



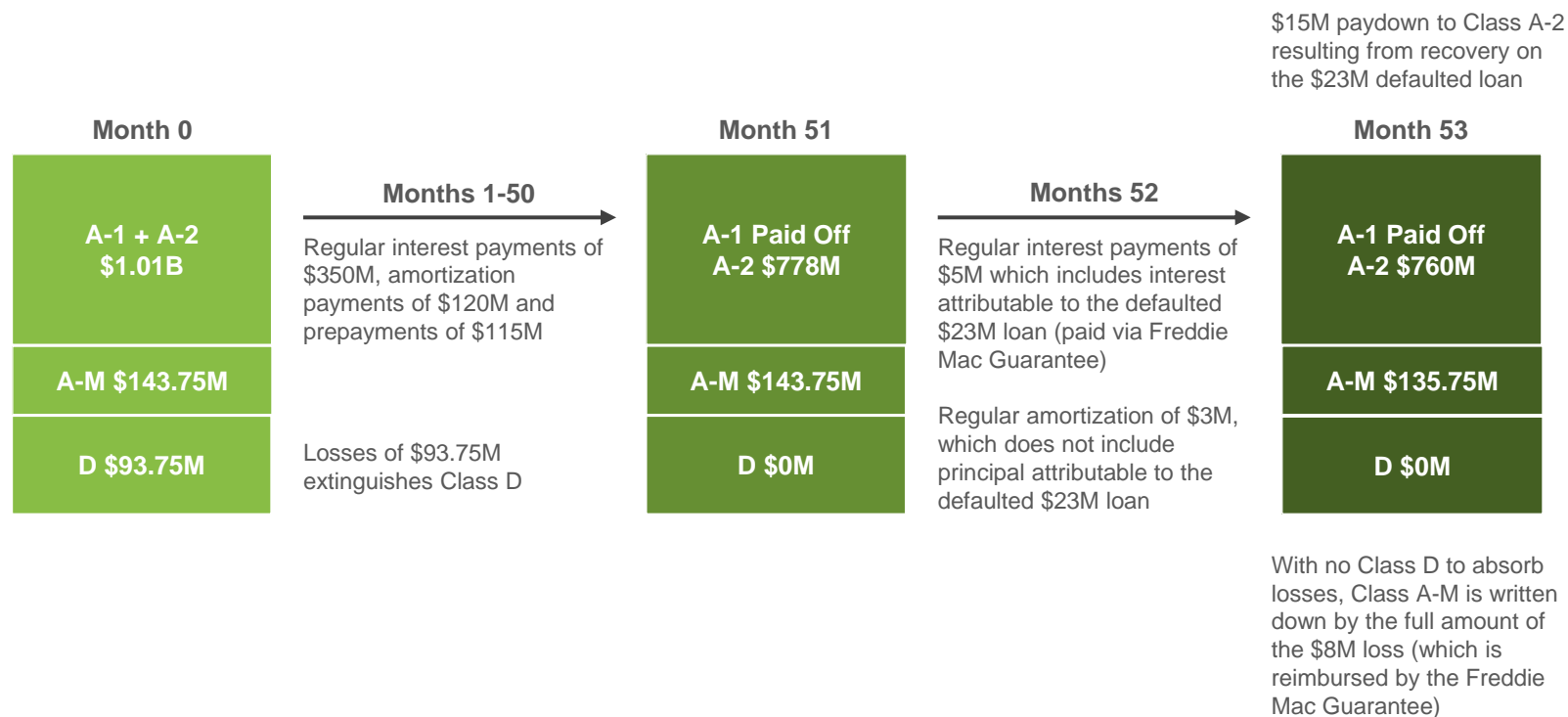
¹ Guarantee fee is multiplied by the outstanding principal balance of the A-1, A-2 and A-M certificates

Sample Fixed-Rate K-Deal Loss Scenarios

Scenario

Example of loan loss in Freddie Mac K-Deal structure

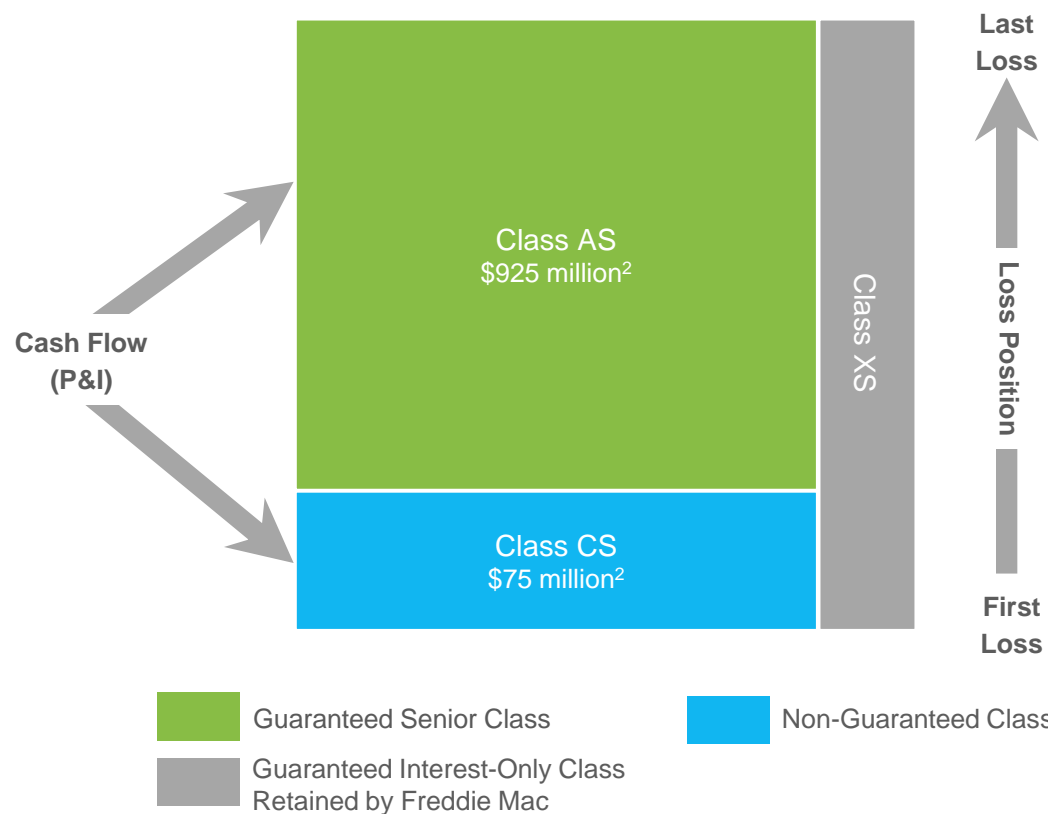
This loss example illustrates how the underlying certificates would be affected by loan defaults and the Freddie Mac guarantee assuming that the servicer is no longer making principal and interest advances with respect to the defaulted loans. This example is hypothetical and for illustrative purposes only. Class balances, loan balances and other mortgage pool characteristics described in this example do not reflect those of any actual underlying certificates or any actual underlying mortgage pools.



Assumptions

- Pool Size: \$1.25 billion
- Losses occur during the first 50 months resulting in Class D being written down to zero
- \$23 million loan defaults in month 51 (prior to loan maturity)
- Loan sold for \$15 million in month 53, \$8 million loss in month 53

Sample K-Deal Subordination – Pro Rata Pay¹



- Pro rata structure is commonly used for floating-rate K-Deals
- Principal collected is distributed pro rata, unless a Waterfall Trigger Event has occurred and is continuing
- A “Waterfall Trigger Event” occurs when (i) the number of non-specially serviced loans remaining in the pool falls below the designated threshold as defined in the securitization documents or (ii) the total outstanding principal balance of the non-specially serviced loans is less than a pre-determined percentage of the initial total pool balance
- Losses on the underlying mortgage loans will be first allocated to the Class CS Certificate until the outstanding principal balance has been reduced to zero

¹ This structure represents a typical floating-rate deal structure; alternative structures may be issued. Please refer to Offering Circular for specifics related to each deal

² For illustrative purposes only, class sizes do not reflect actual bond offering

Sample K-Deal Floating-Rate Coupon and Subordination

Freddie Mac Multifamily began offering SOFR bonds (Class AS) collateralized by LIBOR-based loans with KF73 in December 2019. Our current SOFR-SOFR bond offerings follow the floating-rate bond structure in the diagram below.



- Distribution of interest will be made first to the Class AS and XS certificates concurrently on a pro rata basis
- The Class XS Certificates (i) receive interest-only payments indexed to SOFR and notional to Classes AS and CS, and (ii) are entitled to Static Prepayment Premiums
- Interest will be calculated based upon the published 30-day SOFR average¹

¹ The 30-day Average SOFR average is published on or about 2:30 p.m. (New York time) on the New York Federal Reserve Bank's [website](#)

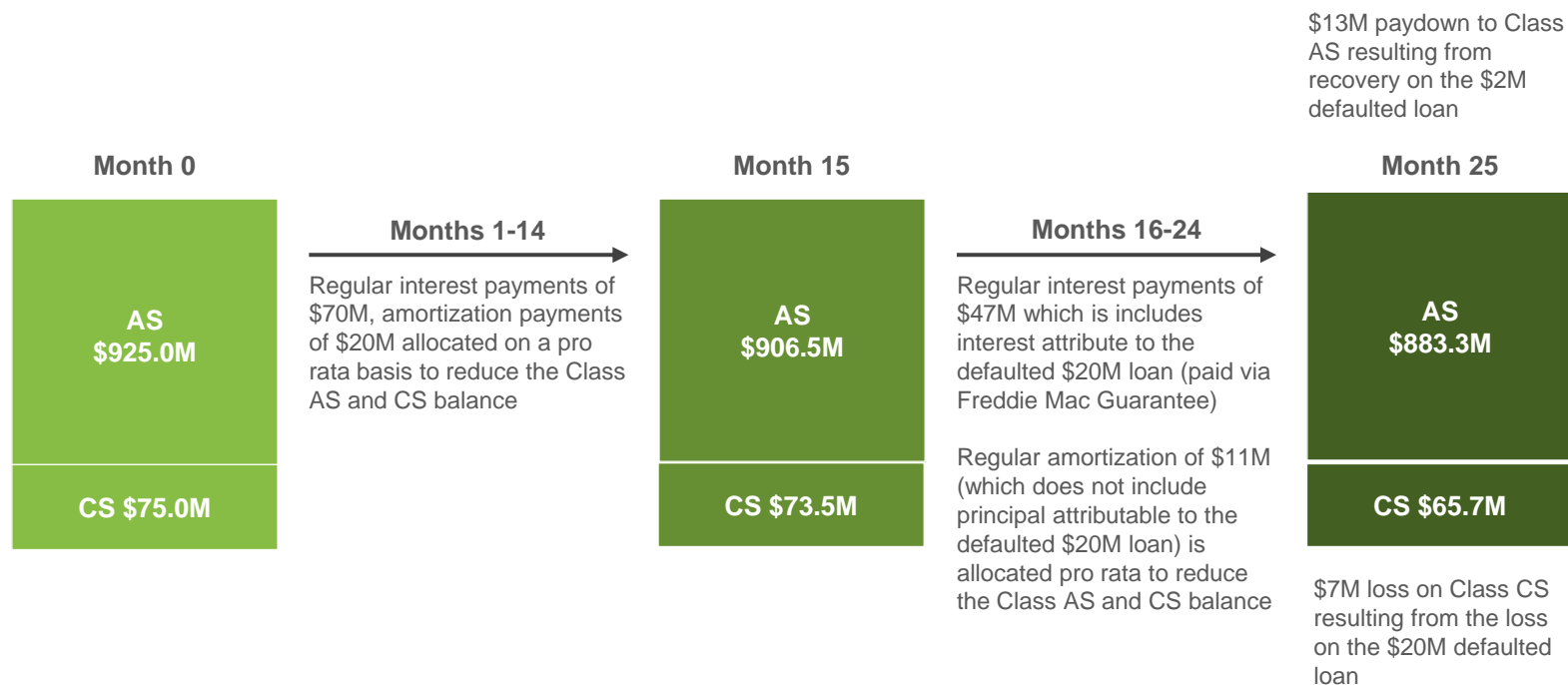
² For illustrative purposes only, class sizes do not reflect actual bond offering

Sample Floating-Rate K-Deal Loss Scenarios

Scenario

Example of loan loss in Freddie Mac K-Deal structure

This loss example illustrates how the underlying certificates would be affected by loan defaults and the Freddie Mac guarantee assuming that the master servicer is no longer making principal and interest advances with respect to the defaulted loans. This example is hypothetical and for illustrative purposes only. Class balances, loan balances and other mortgage pool characteristics described in this example do not reflect those of any actual underlying certificates or any actual underlying mortgage pools.



Assumptions

- Pool Size: \$1.0 billion
- \$20mm loan defaults in month 15 (prior to loan maturity)
- Loan sold for \$13 million in month 25, \$7 million loss in month 25

Call Protection

The following are the general guidelines for Freddie Mac's Multifamily mortgage call protections in the fixed and floating programs.

Defeasance (fixed-rate loans)

- During the defeasance period, voluntary prepayments are prohibited, but the real estate collateral securing the loan may be replaced with securities
- The securities must generate cash flows sufficient to make the scheduled loan payments as they become due, including payment in full on the maturity date
- The defeasance period is typically preceded by a lockout period during which voluntary prepayments are prohibited
- The defeasance period is typically followed by a window period during which prepayments in full are permitted without any prepayment premium

Yield Maintenance (fixed-rate loans)

- Prepayments on the loan are subject to a prepayment premium to maintain the yield of the original contract mortgage
- During the yield maintenance period, the premium is the greater of:
 - 1% of the principal being prepaid
 - The amount calculated pursuant to Freddie Mac's standard yield maintenance formula
- Any prepayment made after the yield maintenance period but before the start of the window period will be subject to a 1% prepayment premium on the amount being repaid

Step Down (floating-rate loans)

- Borrower must pay a prepayment premium of the amounts being prepaid over the life of the loan
- The premium is a fixed percentage that decreases over time. For example, in a 5-4-3-2-1 step-down structure, the premium will equal 5% of the principal being prepaid for a set period, then 4% for the next set period, then 3%, etc.
- When the step-down periods end, there is a window period during which prepayments in full are permitted without any prepayment premium

K-Deal Floating Prepayment

Floating-rate loans offer borrowers more prepayment flexibility

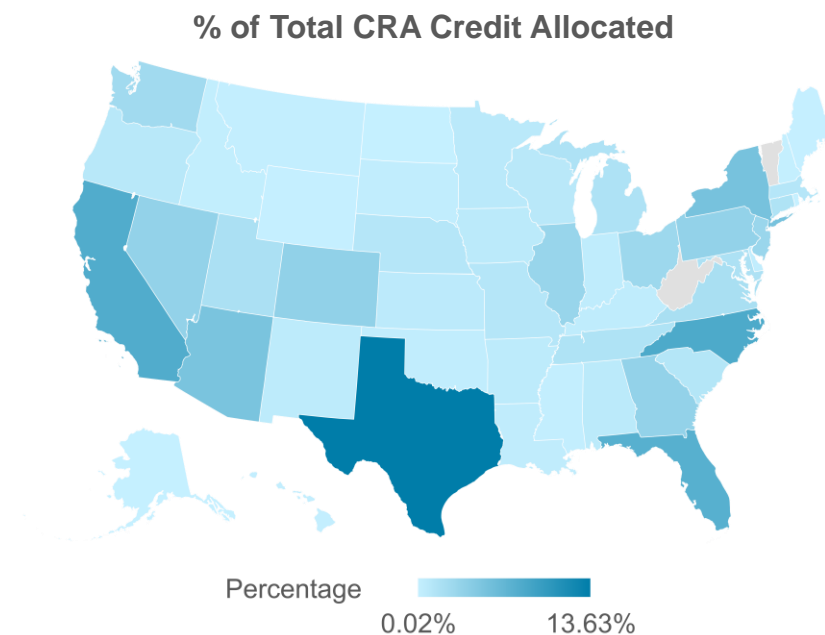
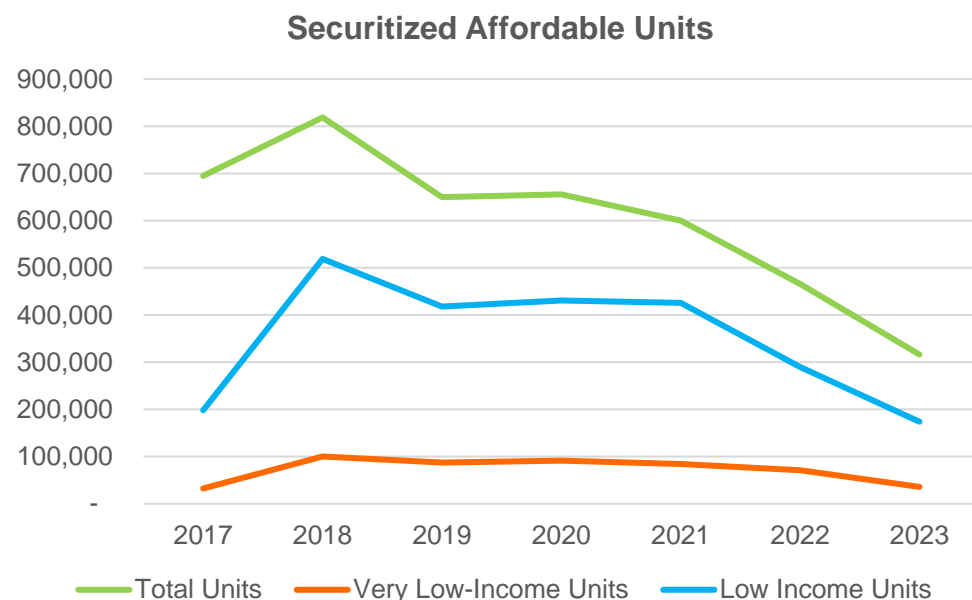
Floating-Rate Prepayment Information ¹												
Origination Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Original Cut-off Balance (Mil)	\$1,371.11	\$1,540.31	\$5,677.39	\$8,778.70	\$16,731.80	\$19,069.68	\$17,240.54	\$15,095.51	\$21,910.61	\$30,614.42	\$17,863.87	\$11,028.95
Original WAC	3.37%	2.96%	2.49%	2.30%	2.94%	3.54%	3.63%	4.74%	2.47%	2.72%	3.74%	6.78%
Current Balance (Mil)	\$0.00	\$0.00	\$0.00	\$83.35	\$362.47	\$1,249.09	\$2,810.46	\$5,638.14	\$7,681.70	\$16,850.51	\$15,973.77	\$11,017.30
Current WAC	0.00%	0.00%	0.00%	6.97%	8.01%	7.39%	6.92%	6.83%	7.48%	7.56%	7.40%	7.15%
K-Deal Vintage Percent Prepaid												
Years Since Securitization	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<1	4.30%	0.00%	0.89%	0.26%	2.10%	0.44%	0.95%	0.11%	2.10%	3.43%	0.93%	0.10%
2	30.79%	34.66%	15.39%	20.07%	25.30%	24.56%	21.75%	8.99%	20.29%	23.97%	9.93%	
3	30.78%	37.73%	36.98%	25.54%	31.82%	27.91%	21.12%	29.12%	29.17%	17.50%		
4	15.93%	14.10%	22.69%	29.31%	22.86%	16.25%	20.09%	17.27%	13.28%			
5	12.41%	6.48%	14.28%	13.73%	5.45%	12.84%	14.81%	6.85%				
6	3.75%	5.34%	4.50%	4.65%	7.06%	10.08%	2.56%					
7	0.62%	0.00%	1.77%	4.15%	2.04%	1.17%						
8	1.43%	1.69%	3.51%	1.21%	1.11%							
9	0.00%	0.00%	0.00%	0.00%								
10	0.00%	0.00%	0.00%									
11	0.00%	0.00%										
12	0.00%											

¹ Information presented in the table is as of December 31, 2023
Note: The data in the table above does not represent CPR

View our [Floating- and Fixed-Rate Loan Payment Report](#) for additional data

K-Deal Program | Community Reinvestment Act (CRA)

Since 2017, we have allocated \$27.9 billion of K-Deal investments to investors seeking to meet their CRA needs¹



- \$27.9 billion has been allocated since 2017 with \$2.9 billion allocated in 2023
- 2.5 million low-income units ($\leq 80\%$ of area median income, AMI) and 0.5 million very low-income units ($\leq 50\%$ of AMI) have been securitized in the K-Deal program since 2017

- Our nationwide lending footprint provides investors the opportunity to meet their CRA needs with investments in properties across all 50 states
- Investors have sought CRA credit in 48 states plus the District of Columbia and Puerto Rico

¹ Freddie Mac makes no representation that the underlying mortgage assets will qualify as CRA eligible or will be accepted by any regulatory or governmental agency for CRA credit. Freddie Mac CRA side letters are only available to investors at new issue. As of December 31, 2023.

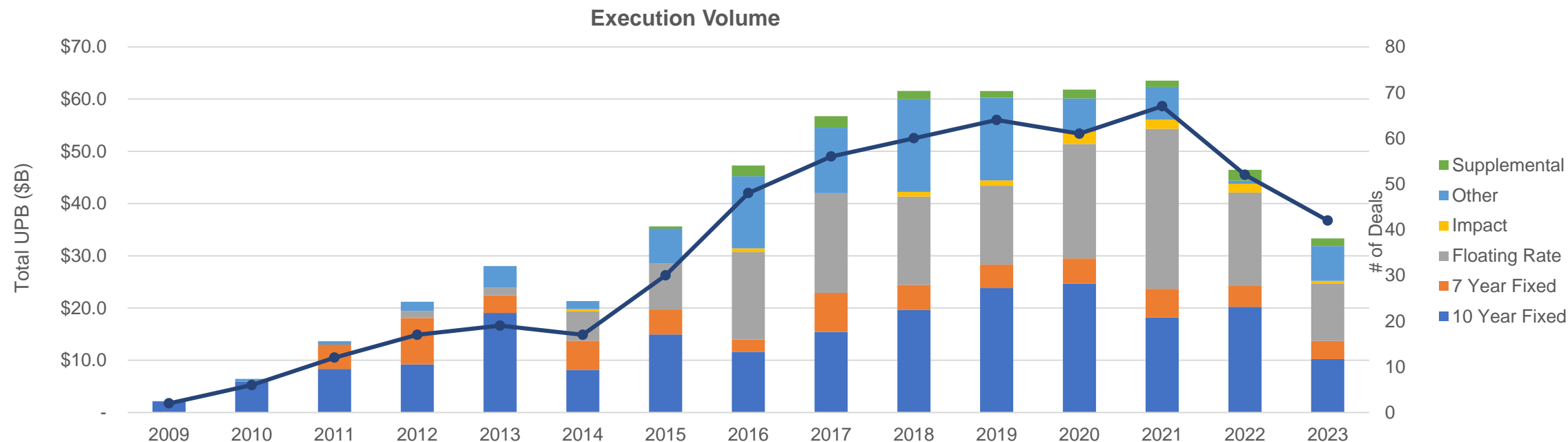
K-Deal Volume by Deal Type

Deal Type	Descriptor	Description	# of Deals	Total UPB ¹ (\$ billion)
10-Year	K-000	Series for fixed loans with various terms, mostly 10-year terms	159	\$ 211.6
Floating Rate	K-F00	Series for loans with floating rates of various terms	161	\$ 166.6
7-Year	K-700	Series for fixed loans with 7-year terms	54	\$ 64.2
Single Sponsor	K-ABC	Series for Single-Sponsor loans, sometimes single asset	31	\$ 29.3
+10-Year	K-1500	Series for fixed loans with greater than 10 years	22	\$ 17.7
Supplemental	K-J00	Series for supplemental loans	48	\$ 14.0
Seniors Housing	K-S00	Series for loans backed by multifamily mortgages on senior properties	15	\$ 11.1
5-Year	K-500	Series for fixed loans with 5-year terms	12	\$ 9.4
Workforce	K-W00	Series for workforce housing loans	10	\$ 6.1
Callable	K-C00	Series for loans with non-standard prepay terms	7	\$ 5.1
Value-Add	K-I00	Series for value-add loans	9	\$ 5.0
Large Loan	K-L00	Series for large loans	6	\$ 4.7
Green	K-G00	Series for Green Advantage® loans	8	\$ 4.3
No-Subordination	K-P00	Series for portfolio loans, with no subordinate piece	5	\$ 4.3
Seasoned	K-X00	Series for seasoned loans	4	\$ 2.5
Sustainability	K-SG00	Series for loans selected in accordance with the Sustainability Bond Framework	4	\$ 2.5
Lease Up	K-LU0	Series for lease up loans	3	\$ 2.3
Total UPB			558	\$ 560.7

¹ Includes Value-Add (K-I00) Deal in which Freddie Mac is not the mortgage loan seller

K-Deal Securitization Volume (2009 – 2023)

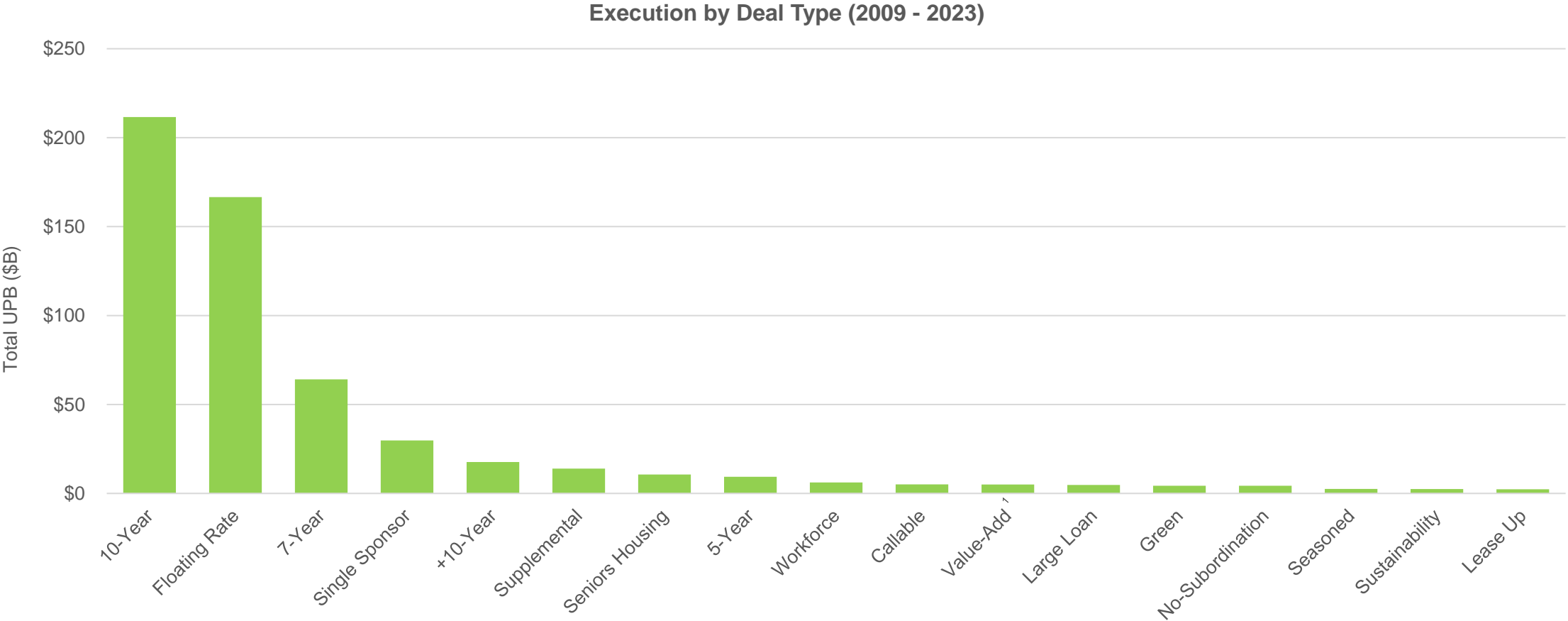
Freddie Mac remains dedicated to our mission, providing liquidity to the market through our consistent issuance



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
10-Year Fixed	\$ 2.1	\$ 5.9	\$ 8.3	\$ 9.2	\$ 19.1	\$ 8.1	\$ 14.9	\$ 11.6	\$ 15.4	\$ 19.6	\$ 23.8	\$ 24.7	\$ 18.2	\$ 20.2	\$ 10.2	\$ 211.6
7-Year Fixed	-	-	\$ 4.6	\$ 8.9	\$ 3.4	\$ 5.6	\$ 4.8	\$ 2.4	\$ 7.5	\$ 4.8	\$ 4.5	\$ 4.8	\$ 5.5	\$ 4.0	\$ 3.5	\$ 64.1
Floating Rate	-	-	-	\$ 1.4	\$ 1.5	\$ 5.7	\$ 8.8	\$ 16.7	\$ 19.1	\$ 16.9	\$ 15.1	\$ 21.9	\$ 30.6	\$ 17.9	\$ 11.0	\$ 166.6
Supplemental	-	-	-	-	-	-	\$ 0.4	\$ 2.1	\$ 2.2	\$ 1.6	\$ 1.3	\$ 1.7	\$ 1.2	\$ 2.1	\$ 1.5	\$ 14.0
Impact	-	-	-	-	-	-	-	-	-	\$ 1.7	\$ 1.6	\$ 2.8	\$ 1.8	\$ 1.7	\$ 0.5	\$ 10.0
Other	-	\$ 0.5	\$ 0.7	\$ 1.7	\$ 4.1	\$ 1.9	\$ 6.7	\$ 14.5	\$ 12.5	\$ 17.0	\$ 15.3	\$ 5.9	\$ 6.3	\$ 0.6	\$ 6.6	\$ 94.4
Total UPB ¹	\$ 2.1	\$ 6.4	\$ 13.7	\$ 21.2	\$ 28.0	\$ 21.3	\$ 35.6	\$ 47.3	\$ 56.7	\$ 61.6	\$ 61.5	\$ 61.8	\$ 63.5	\$ 46.5	\$ 33.3	\$ 560.7

¹ Includes Value-Add (K-100) Deal in which Freddie Mac is not the mortgage loan seller

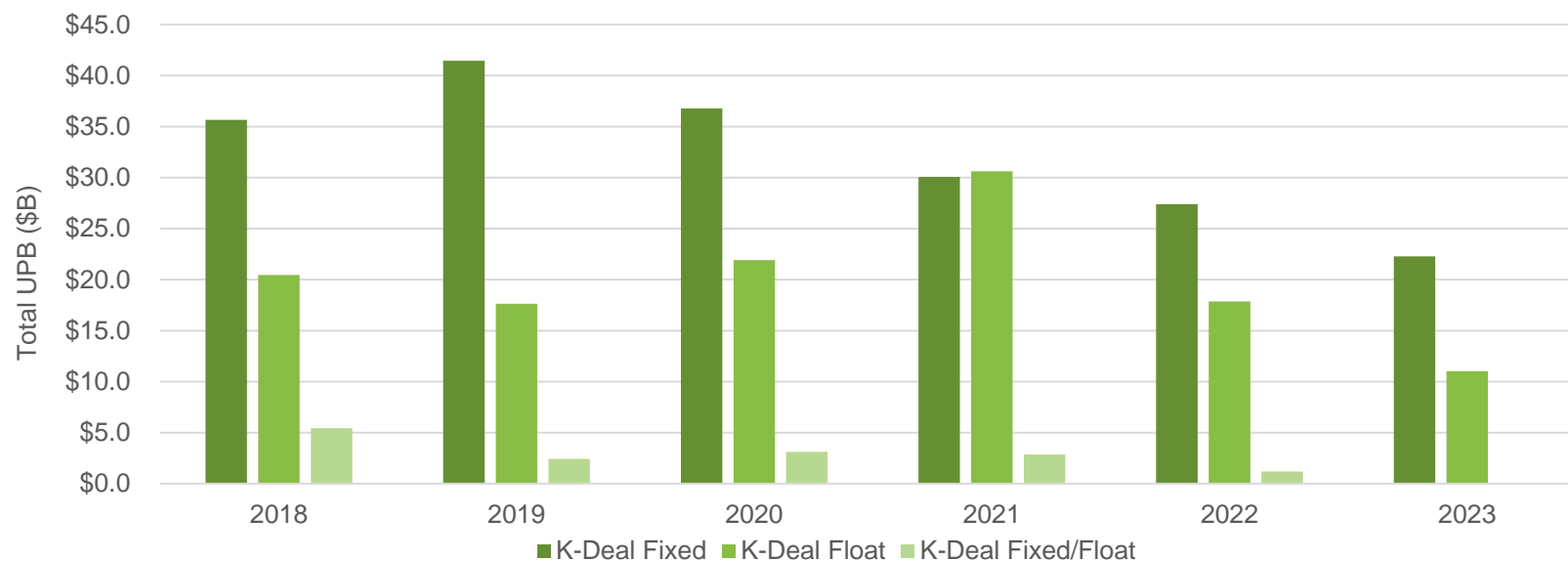
K-Deal Securitization Volume (Continued)



¹ Includes Value-Add (K-100) deal type in which Freddie Mac is not the mortgage loan seller

Securitized Collateral UPB for On-The-Run Deals

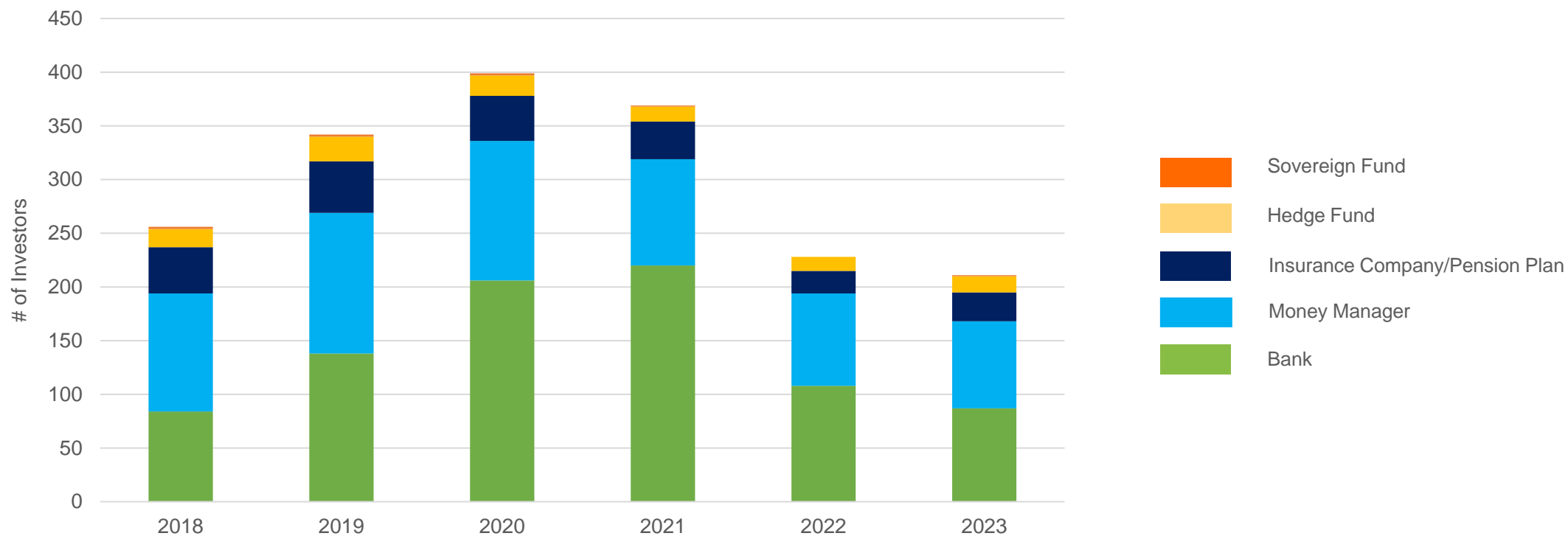
Below is a breakout of fixed- and floating-rate K-Deal collateral unpaid principal balance (UPB) that has been securitized since 2018



Year	2018	2019	2020	2021	2022	2023
K-Deal Fixed	\$35.7	\$41.5	\$36.8	\$30.1	\$27.4	\$22.3
K-Deal Float	\$20.5	\$17.6	\$21.9	\$30.6	\$17.9	\$11.0
K-Deal Fixed/Float	\$5.4	\$2.4	\$3.1	\$2.9	\$1.2	\$0.0
Total	\$61.6	\$61.5	\$61.8	\$63.5	\$46.5	\$33.3

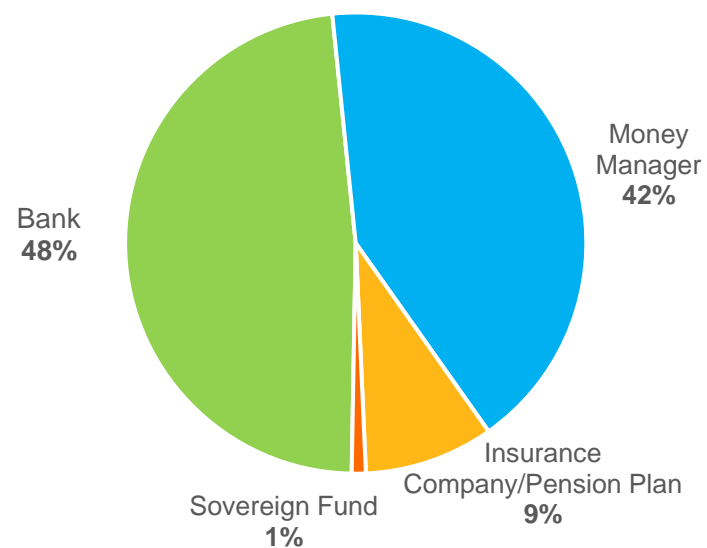
Historical Investor Participation

Investor participation in the K-Deal program remains active as our consistent issuance provides ample liquidity to the market



Historical Investor Types

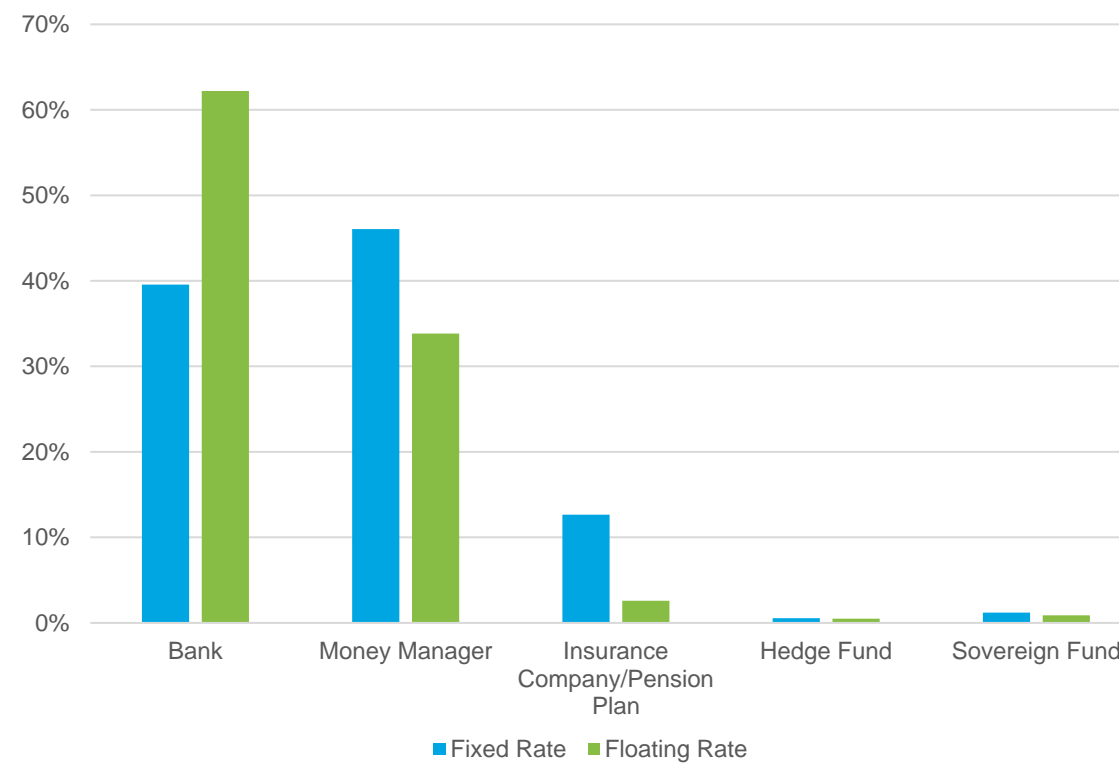
K-Deal Investors by Type¹



Since the K-Deal program's inception in 2009, the investor base has grown significantly:

- 964 investors historically, with 206 participating in 2023
- Average of 34 different accounts per transaction historically, with 21 per transaction in 2023
- 63 subordinate investors historically, with 17 participating in 2023

Fixed- vs Floating-Rate Investors¹



¹ Data reflects senior bond allocations for all deals closed in the life of the program
K-Deal Program © Freddie Mac Multifamily

K-Deal Performance

Freddie Mac is an active and consistent issuer of top-quality multifamily securities, featuring transparency and consistency on collateral and deal information

As of December 2023, the K-Deal program has grown to include

- 552 K-Deal transactions
- \$557.49 billion in combined issuance
- 26,246 loans (original loan counts)
- 99.63% of the K-Deal loans are current
- 101 loans are assigned to special servicing (representing <34 bps of outstanding principal)
- There have been \$55.16 million in total realized losses (representing <2 bps of total issuance)
- Freddie Mac has not realized any credit losses on our K-Deal guarantees¹
- 11,899 loans have paid off on or prior to maturity date (41.06% of combined issuance, by loan balance)
- 11.11% of the outstanding loan population (by outstanding principal) is on the servicers' watchlist²

¹ There has been \$55.16 million in total realized losses by B-piece investors (representing <2 bps of total issuance)

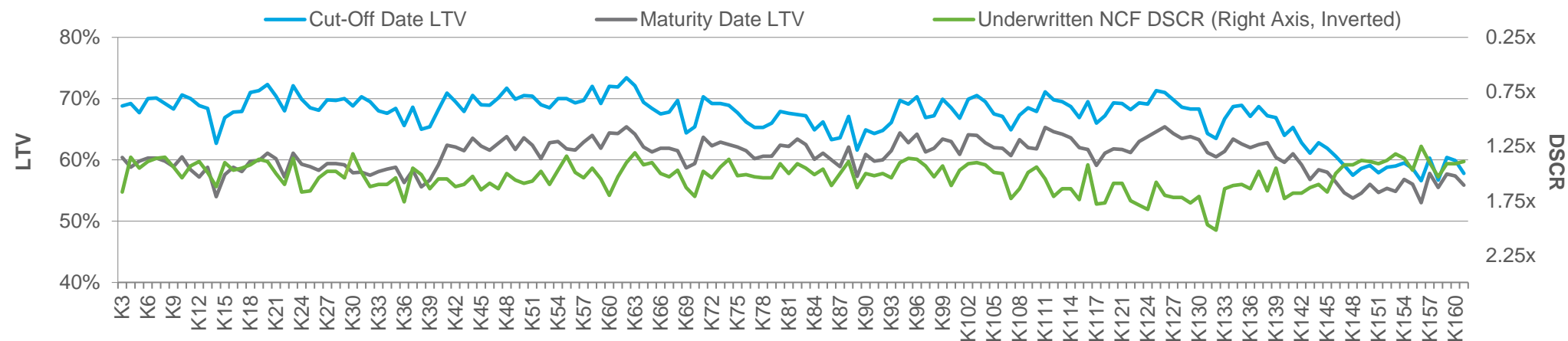
² The respective Master Servicers maintain a watchlist for each securitization. Loans are added to and removed from the watchlist in accordance with criteria established by CREFC

K-Deal Snapshot

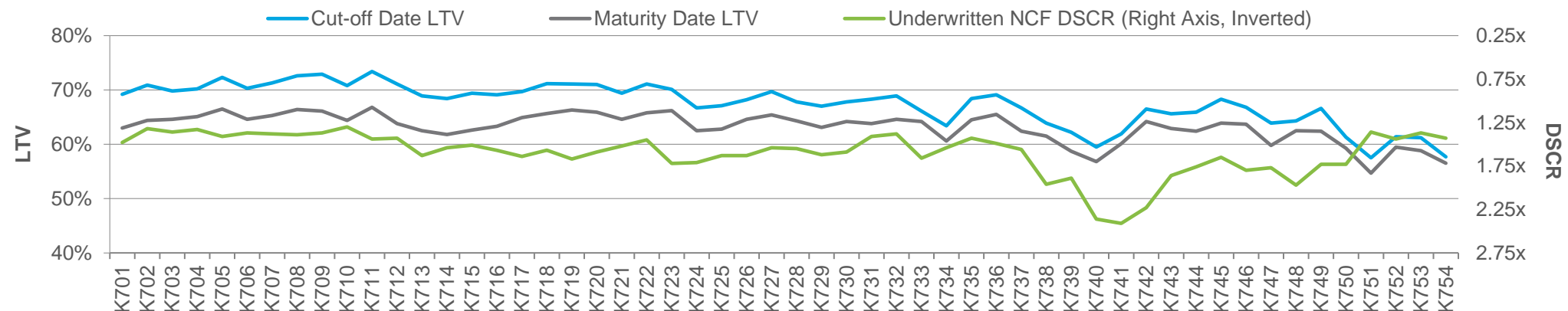
# of Deals	Year	Closing Date	# of Loans	Closing Balance (\$ Millions)	Guaranteed Balance (\$ Millions)	Average Loan Cutoff Principal Balance (\$ Millions)	WA Annual Coupon (Fixed)	WA Annual Spread (Floating)	Remaining Loan Term (Months)	Seasoning (Months)	Loan to Value %	Debt Service Coverage Ratio	Loan Balance % Top 10	Acquisition Loans %
2	2009 Deals	2009	108	2,140.00	1,979.50	19.8	5.708	-	115	4	69.0	1.51	54.4	28.8
6	2010 Deals	2010	364	6,443.71	5,693.79	17.7	5.572	-	113	4	69.0	1.38	46.2	24.9
12	2011 Deals	2011	839	13,658.17	11,722.21	16.3	4.919	-	102	5	68.5	1.43	38.7	30.0
17	2012 Deals	2012	1141	21,203.76	17,922.33	18.6	4.220	3.151	92	6	70.3	1.45	37.3	39.3
19	2013 Deals	2013	1391	28,036.11	23,696.30	20.2	3.760	2.532	104	6	68.5	1.56	36.3	45.6
17	2014 Deals	2014	1299	21,324.93	18,262.56	16.4	4.201	2.348	92	5	68.5	1.68	34.4	47.2
30	2015 Deals	2015	1858	35,621.53	30,552.87	19.2	4.381	2.511	100	7	70.1	1.63	45.7	48.7
48	2016 Deals	2016	2643	47,289.04	41,553.83	17.9	4.272	2.441	96	7	70.6	1.54	48.6	52.1
55	2017 Deals	2017	2623	56,721.94	50,079.20	22.7	4.469	2.301	103	6	68.4	1.53	49.6	49.3
60	2018 Deals	2018	2843	59,921.07	52,843.98	21.1	4.313	1.816	105	4	68.0	1.46	52.0	43.8
65	2019 Deals	2019	2559	61,541.58	54,099.19	37.8	3.497	2.479	109	4	67.8	1.43	55.3	47.1
63	2020 Deals	2020	2742	61,814.08	56,465.82	32.7	3.188	2.488	113	4	67.0	1.60	54.5	36.0
67	2021 Deals	2021	2737	63,540.75	59,491.19	26.8	4.009	2.414	110	3	69.0	1.61	56.4	51.1
52	2022 Deals	44834	2007	46,465.50	43,138.37	27.3	5.614	2.060	105	2	61.7	1.43	55.1	38.7
42	2023 Deals	6/29/2023	1269	32,612.15	30,644.91	30.6	5.574	2.045	102	3	58.5	1.31	62.59	30.2
7	2023 Q1	3/29/2023	275	6,149.54	5,724.54	25.2	5.770	2.080	116	2	58.1	1.20	57.6	38.4
10	2023 Q2	6/29/2023	329	8,724.15	8,198.40	30.1	5.520	2.050	107	4	58.0	1.25	64.0	26.3
12	2023 Q3	9/29/2023	316	7,907.69	7,455.71	32.5	5.301	2.003	98	4	60.3	1.38	64.4	28.2
13	2023 Q4	12/29/2023	349	9,830.77	9,266.26	33.2	5.706	2.046	86	4	57.6	1.39	69.9	28.2

Credit Metrics – Fixed-Rate K-Deals

10-Year Fixed K-Deals

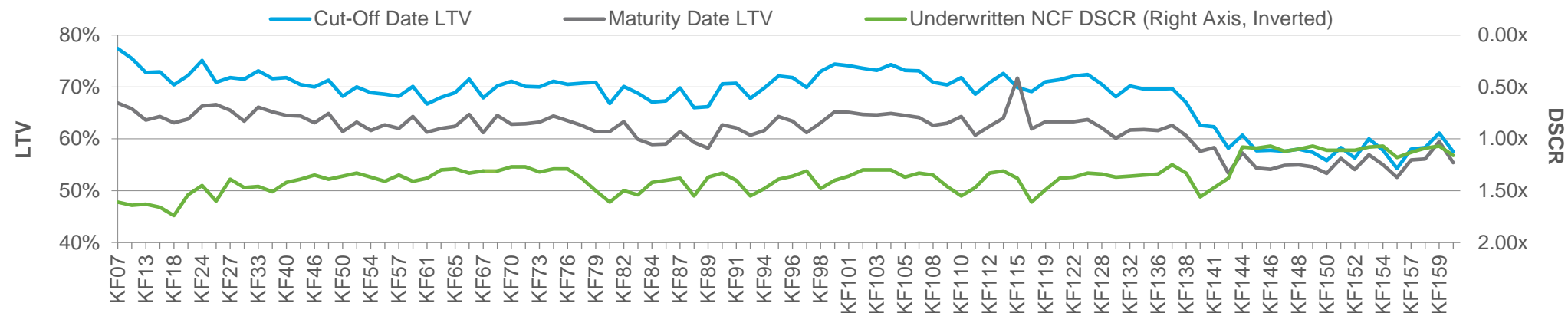


7-Year Fixed K-Deals

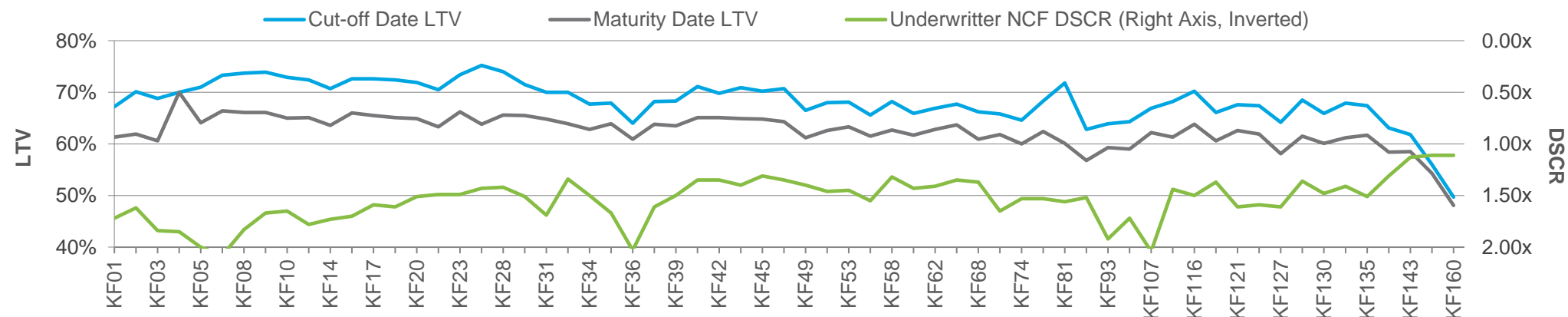


Credit Metrics – Floating-Rate K-Deals

10-Year Floating K-Deals



7-Year Floating K-Deals



Loan Performance Resources

Performance data for our K-Deals is updated monthly at <https://mf.freddiemac.com/investors/data.html>

K-Deal® Performance

Performance through December 2023


COMBINED ISSUANCE	DEALS	LOANS	PAID OFF LOANS
\$557.49 B	552	26,246 <small>original loan count</small>	11,899
DELINQUENCY STATUS	AGGREGATE LOSSES	LOANS IN SPECIAL SERVICING	UNPAID BALANCE ON WATCHLIST*
0.37%	\$55.16 M	101	11.11%



[View the K-Deal Performance Presentation PDF](#)

*The respective master servicers maintain a watchlist for each securitization. Loans are added to and removed from the watchlist in accordance with criteria established by CREFC.

Loan-level performance can be accessed in our [Multifamily Securities Investor Access](#) tool

 Multifamily Securities Investor Access [LOG IN](#)

Multifamily Securities Investor Access (MSIA) is an online tool that provides investors and analysts with information related to Freddie Mac Multifamily K-Deals, ML-Deals, Q-Deals, SB-Deals, and PC mortgage-backed securities and their underlying collateral. It also provides information about SCR Notes. The available data includes the standard Investor Reporting Package provided monthly by the master servicer and trustee for a given security issuance. For a single deal or a portfolio, this tool provides a combination of standard and custom reporting capabilities.

[MSIA Reference Manual PDF](#)

[MSIA Quick Start Tips PDF](#)

Historical information about our Whole Loan Portfolio is available in the [Multifamily Loan Performance Database](#)

Multifamily Loan Performance Database

This database provides historical information on a subset of the Freddie Mac Multifamily whole loan portfolio since 1994. It also includes information on original loan terms; identifiers for prepaid loans, defaulted loans and delinquencies; property information; and dates of real estate owned (REO) sales.

If you want to use the data for commercial redistribution, please follow the instructions in the Licensing Agreement for Using the Multifamily Loan Performance Database below.

[Overview and Data Dictionary PDF](#)

[Loan Performance Dataset PDF](#)

[Dataset Loss Summary PDF](#)

[Licensing Agreement for Using the Multifamily Loan Performance Database PDF](#)

Bloomberg Naming Conventions

Deal Type	Descriptor	Bloomberg SPC
10-Year	K-000	K-001 to K-149 : FHMS K###, K-150 onward : FHMS K-###
Floating Rate	K-F00	K-F001 to K-F099 : FHMS KF##, K-F100 to K-F122 : FHMS K-F###, K-F123 onward : FHMS KF###
7-Year	K-700	FHMS K7##
Single Sponsor	K-ABC	FHMS KABC
+10-Year	K-1500	K-1501 to K-1509 : FHMS K15#, K-1510 to K-1521 : FHMS K-15##, K-1522 : FHMS K1522
Senior Housing	K-S00	FHMS KS##, KS08 : S8FL/S8FX
Supplemental	K-J00	FHMS KJ##, KJ15/KJ19/KJ22 : FHMS J##F/J##L
Workforce	K-W00	FHMS KW##
Callable	K-C00	FHMS KC##
Large Loan	K-L00	K-L01 to K-L04 : FHMS KL#, K-L05 onward : FHMS KL0#
No-Subordination	K-P00	FHMS KP0#
5-Year	K-500	FHMS K50#
Value-Add	K-I00	FHMS KI0#
Seasoned	K-X00	FHMS KX0#, KX02/KX03 : X#FX/X#FL
Lease Up	K-LU0	FHMS KLU#
Green	K-G00	FHMS KG##
Sustainability	K-SG0	FHMS KSG#

View our [Security Lookup](#) tool to search for disclosure data and documents

K-161 Transaction Highlights

Overview of Deal Structure (Pricing Date: November 14, 2023)¹

Class	Initial Principal or Notional Amount	Pricing Spread	Assumed Weighted Average Life
Offered K-161 Certificates:			
A-1	\$30,000,000	J+76	6.95
WI A-2	\$575,000,000	J+82	10.27
A-2	\$427,061,000	J+72	9.81
WI A-M	\$150,000,000	J+90	10.27
X1	\$1,032,061,000	T+185	9.72
XAM	\$150,000,000	Auctioned	9.93
X3	\$62,214,000	T+425	9.97
Total Guaranteed	\$1,182,061.00		

Deal Characteristics²

Collateral Type	Multifamily 10-Year Fixed
Collateral Structure Type	Balloon
Mortgage Loans	51
Initial Underlying Pool Balance	\$1,244,275,000
Rating Agencies	S&P/KBRA
Waterfall Structure	Sequential
Top 5 State Concentrations	CO (18.1%), FL (11.1%), CA (10.4%), TX (9.6%), WA (6.6%)
WA Mortgage Interest Rate	5.713%
WA Original Maturity	118 months
WA DSCR	1.39x
WA LTV	57.8%

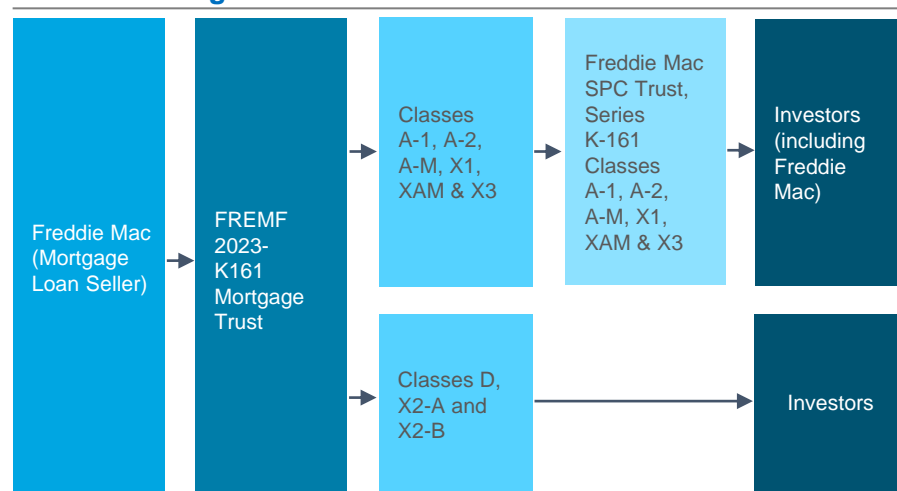
¹ WI A-2 and WI A-M class priced October 11, 2023

² As of the Cut-off Date

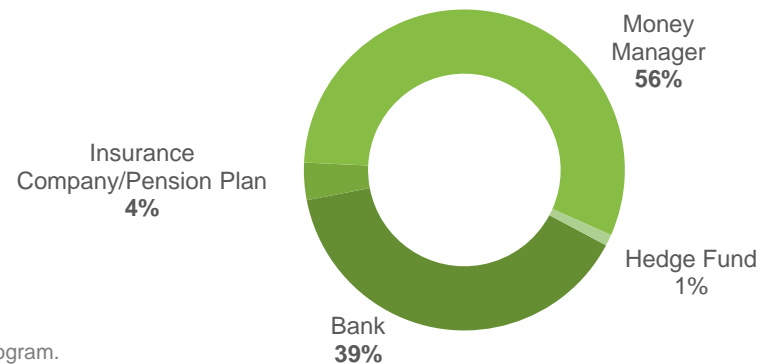
³ Majority of the A-2 and A-M class are sold through the WI- program. Visit our [When-Issued webpage](#) for additional resource on the program

⁴ As of the Closing Date

Structural Diagram³



Breakdown of Investors (Classes A-1, A-2 and A-M)⁴



K-512 Transaction Highlights

Overview of Deal Structure (Pricing Date: December 11, 2023)

Class	Initial Principal or Notional Amount	Pricing Spread	Assumed Weighted Average Life
Offered K-512 Certificates:			
A-1	\$8,824,000	J+51	4.78
A-2	\$583,000,000	J+48	3.28
X1	\$591,824,000	Auctioned	4.52
Total Guaranteed	\$591,824,000		

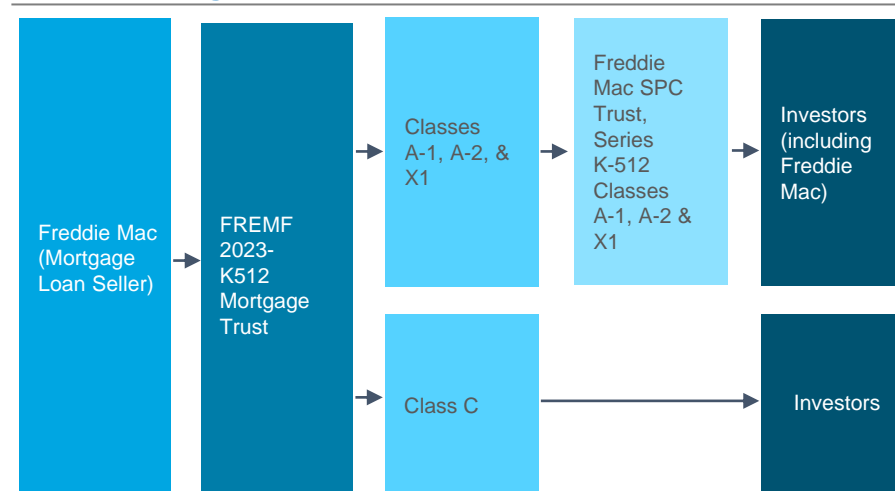
Deal Characteristics¹

Collateral Type	Multifamily 5-Year Fixed
Collateral Structure Type	Balloon
Mortgage Loans	16
Initial Underlying Pool Balance	\$622,973,255
Rating Agencies	N/A
Waterfall Structure	Sequential
Top 5 State Concentrations	IL (19.9%), NY (18.8%), NJ (18.4%), TX (16.8%), WI (5.6%)
WA Mortgage Interest Rate	5.778%
WA Original Maturity	60 months
WA DSCR	1.43x
WA LTV	60.5%

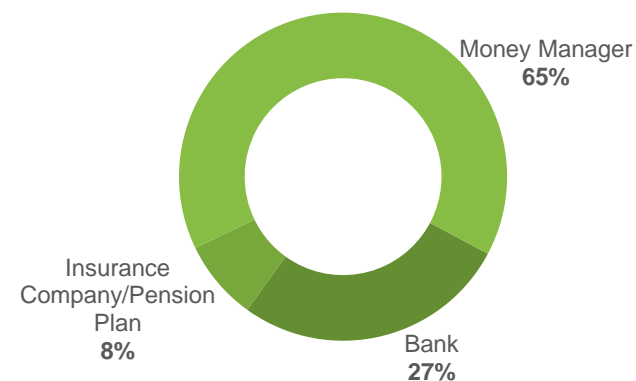
¹ As of the Cut-off Date

² As of the Closing Date

Structural Diagram



Breakdown of Investors (Classes A-1 and A-2)²



K-F161 Transaction Highlights

Overview of Deal Structure (Pricing Date: December 12, 2023)

Class	Initial Principal or Notional Amount	Pricing Spread	Assumed Weighted Average Life
Offered K-F161 Certificates:			
AS	\$652,162,000	S+70	9.48
XS	\$41,473,000	Non-Offered	9.49
Total Guaranteed	\$652,162,000		

Deal Characteristics¹

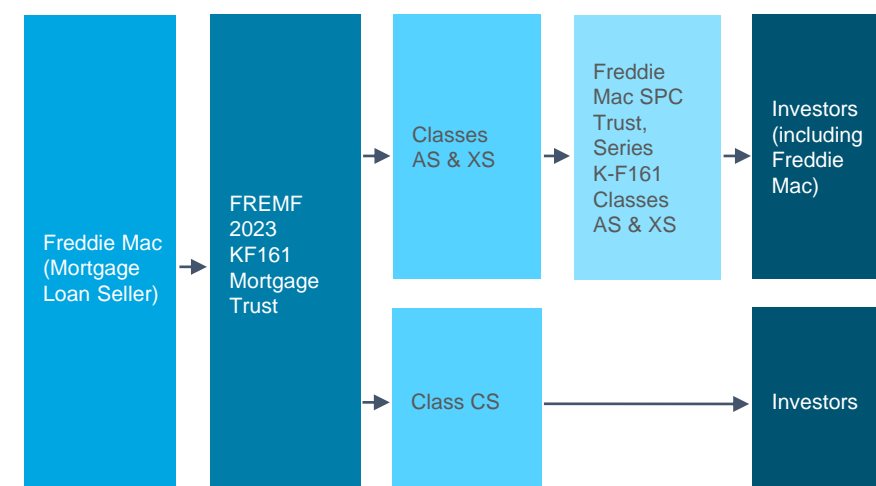
Collateral Type	Multifamily Floating-Rate Mortgage Loans
Collateral Structure Type	Balloon
Mortgage Loans	20
Initial Underlying Pool Balance	\$705,041,000
Rating Agencies	Not Rated
Waterfall Structure	Pro Rata
Top 5 State Concentrations	FL (30.7%), TX (20.3%), AZ (20.1%), VA (9.2%), LA (6.7%)
WA Original Maturity	120 months
WA DSCR	1.16x
WA LTV	57.5%

¹ As of the Cut-off Date

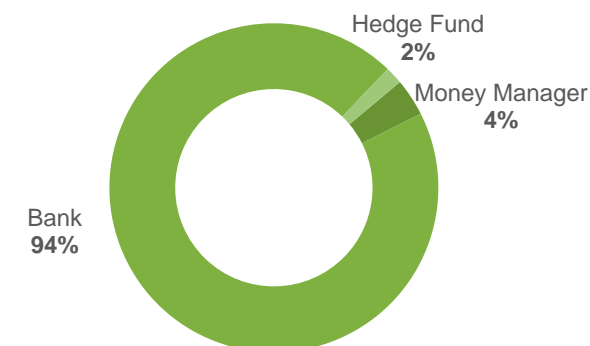
² As of the Closing Date

Note: Floating-rate K-Deals now include one bond class indexed to SOFR

Structural Diagram



Breakdown of Investors (Class AS)²



K-J48 Transaction Highlights

Overview of Deal Structure (Pricing Date: December 6, 2023)

Class	Initial Principal or Notional Amount	Pricing Spread	Assumed Weighted Average Life
Offered K-J48 Certificates:			
A-1	\$31,478,000	J+59	3.98
A-2	\$185,000,000	J+88	6.39
X	\$36,382,980	Non-Offered	5.59
Total Guaranteed	\$252,874,000		

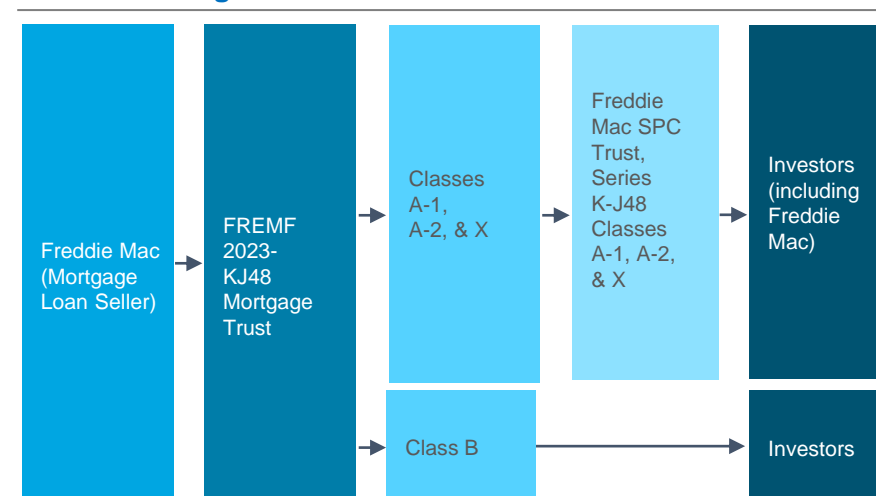
Deal Characteristics¹

Collateral Type	Multifamily Supplemental Mortgage Loans
Collateral Structure Type	Balloon
Mortgage Loans	38
Initial Underlying Pool Balance	\$254,680,858
Rating Agencies	Not Rated
Waterfall Structure	Pro Rata
Top 5 State Concentrations	CA (18.5%), AZ (16.3%), FL (12.4%), TX (9.2%), OH (8.0%)
WA Mortgage Interest Rate	7.17%
WA Original Maturity	78 months
WA DSCR	1.48x
WA LTV	63.3%

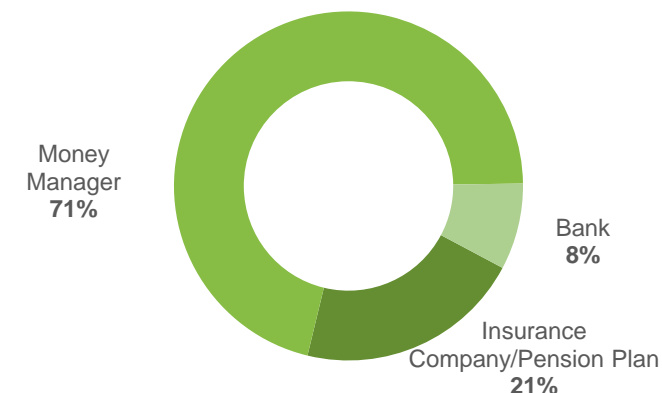
¹ As of the Cut-off Date

² As of the Closing Date

Structural Diagram



Breakdown of Investors (Classes A-1 and A-2)²



K-G08 Transaction Highlights

Overview of Deal Structure (Pricing Date: July 25, 2023)

Class	Initial Principal or Notional Amount	Pricing Spread	Assumed Weighted Average Life
Offered K-G08 Certificates:			
A-1	\$30,537,000	J+73	7.71
A-2	\$427,000,000	J+80	9.34
X1	\$457,537,000	Auctioned	9.23
Total Guaranteed	\$457,537,000		

Deal Characteristics¹

Collateral Type	Multifamily Fixed-Rate Mortgage Loans
Impact Designation	Green
Collateral Structure Type	Balloon
Mortgage Loans	15
Initial Underlying Pool Balance	\$481,618,000
Rating Agencies	Not Rated
Waterfall Structure	Sequential
Top 5 State Concentrations	CA (33.3%), WA (23.9%), KS (9.8%), VA (6.8%), PA (6.7%)
WA Original Maturity	120 months
WA DSCR	1.51x
WA LTV	61.4%

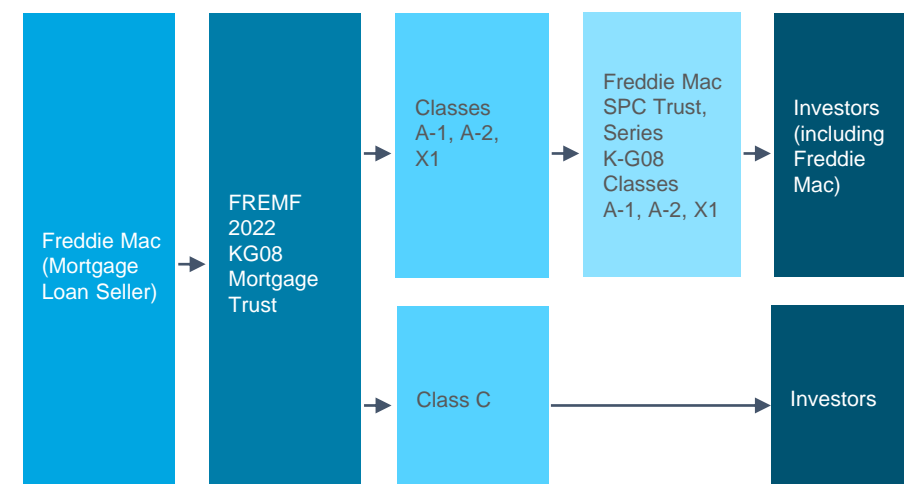
¹ As of the Cut-off Date

² As of the Closing Date

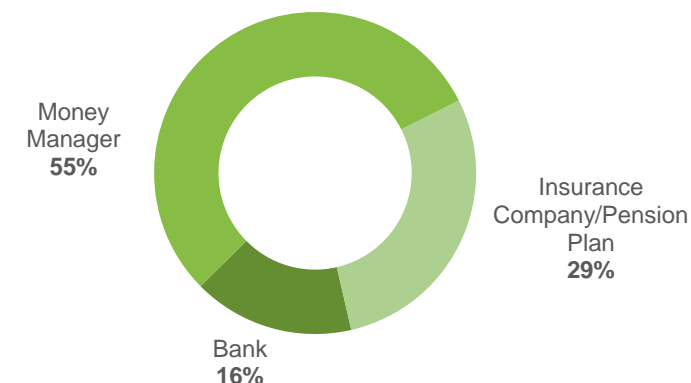
Visit our [website](#) for our other Impact Bond offerings and their execution path

K-Deal Program © Freddie Mac Multifamily

Structural Diagram



Breakdown of Investors (Classes A-1 and A-2)²



This product overview may contain forward-looking statements. Forward-looking statements involve known and unknown risks and uncertainties, some of which are beyond the company's control. Management's expectations for the company's future necessarily involve several assumptions, judgments and estimates, and various factors could cause actual results to differ materially from the expectations expressed in these and other forward-looking statements. These assumptions, judgments, estimates and factors are discussed in the company's most recent Annual Report on Form 10-K, and its reports on Form 10-Q and Form 8-K, which are available on the Investor Relations page of the company's website at mf.freddiemac.com/investors and the SEC's website at www.sec.gov. The company undertakes no obligation to update forward-looking statements it makes to reflect events or circumstances occurring after the date of this presentation.

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