REPORT ON COLLATERAL PLEDGED TO FEDERAL HOME LOAN BANKS

PREPARED FOR THE SENATE COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS AND THE HOUSE COMMITTEE ON FINANCIAL SERVICES

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Division of Federal Home Loan Bank Regulation

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Section 1 – Background

Congress established the Federal Home Loan Bank System (System) under the Federal Home Loan Bank Act of 1932 (the Bank Act). The primary business of the Federal Home Loan Banks (FHLBanks) is to make fully secured, low-cost loans, known as advances, to their members.[1,2] Consistent with the provisions of the Bank Act, the FHLBanks require their members to pledge collateral in the form of mortgages and other eligible assets to secure their advances and other collateralized products offered by the FHLBanks to their members.[3]

The Housing and Economic Recovery Act of 2008 (HERA) requires the Federal Housing Finance Agency (FHFA) to submit an annual report to Congress on the collateral pledged to the FHLBanks, including an analysis of collateral by type and by FHLBank district.[4] FHFA's Report on Collateral Pledged to Federal Home Loan Banks provides the required information as well as additional analysis of data on the types and amounts of collateral pledged to the FHLBanks to secure advances and other collateralized products offered by the FHLBanks to their members. The information in this report uses data collected quarterly by FHFA's Division of Federal Home Loan Bank Regulation (DBR). The charts and graphs report data on the unpaid principal balance (UPB) of eligible collateral pledged by FHLBank members as of December 31, 2022, unless otherwise indicated.[5]

In 2022 and 2023, FHFA conducted a comprehensive review of the System, the results of which are described in the *Federal Home Loan Bank System at 100: Focusing on the Future* report.

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[1] Members of the FHLBanks include commercial banks, savings banks and savings associations, credit unions, insurance companies, and community development financial institutions (CDFIs). The Bank Act, at 12 U.S.C. 1424(a), as implemented by FHFA's regulations at 12 CFR 1263.6, sets forth the eligibility requirements for Bank membership. The Department of the Treasury's regulations at 12 CFR 1805.200-201 set forth requirements for eligibility and certification as a CDFI.
[2] Non-member entities, such as state housing finance agencies, that meet certain requirements may obtain advances if they are certified as FHLBank "housing associates." See 12 CFR part 1264. Advances to housing associates must be secured by a more limited range of collateral than is eligible to secure advances to members. For the purposes of this report, any reference to members includes non-member housing associates.
[3] The FHLBank locations are Boston (BOS), New York (NYK), Pittsburgh (PIT), Atlanta (ATL), Cincinnati (CIN), Indianapolis (IND), Chicago (CHI), Des Moines (DSM), Dallas (DAL), Topeka (TOP), and San Francisco (SFR). Please see the appendix for a map of the System.
[4] 12 U.S.C. § 1430(j)(12)(C).
[5] This report defines eligible collateral as the total unpaid principal balance of collateral pledged by a member and deemed eligible by the FHLBank. Eligible collateral is a "pre-haircut" measure. This definition of eligible collateral excludes ineligible collateral (the difference between the pledged collateral and eligible collateral values) pledged by members. However, this may or may not account for ineligibility factors FHLBanks incorporate based on their collateral reviews, as some FHLBanks may impose the ineligibility factor as part of the haircut. The FHLBanks will have ineligible collateral pledged as part of the blanket lien agreements with members.

FHFA will undertake further review of the issues addressed in the report, including issues related to collateral pledged to the FHLBanks, and will begin taking steps to address the report's recommendations through ongoing supervision, guidance, or rulemaking.[6]

Collateral at the FHLBanks

The Bank Act and FHFA regulations require the FHLBanks to obtain, at the time the borrower originates or renews an advance and thereafter maintain, a security interest in eligible collateral from the borrower or an affiliate of the borrower that is sufficient to fully secure the advances.[7] In general, the FHLBanks comply with this requirement by requiring each member or housing associate to sign a collateral security agreement that gives the FHLBank a security interest in some or all of its assets in an amount that exceeds the amount of advances outstanding to the member. The most commonly used agreement is a blanket lien, under which the FHLBank's security interest attaches to all of a member's assets or, in some cases, to specified categories of a member's assets. Under a blanket lien, the FHLBank has a security interest in the member's assets that are subject to the lien, but it does not necessarily have detailed information about the specific assets covered by the lien.

The board of directors of each FHLBank establishes the FHLBank's collateral policy, consistent with statutory and regulatory requirements.[8] Each FHLBank's collateral policy identifies the types and amounts of eligible collateral it will accept, and each FHLBank specifies its own method to establish collateral discounts, or "haircuts," on various types of collateral. To determine the lending value or borrowing capacity of the collateral, each FHLBank discounts, or

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[6] The *"Federal Home Loan Bank System at 100: Focusing on the Future"* initiative began in August 2022. In November 2023, FHFA published a report on the initiative, which can be accessed at: https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/FHLBank-System-at-100-Report.pdf.

[7] 12 U.S.C. 1430(a)(1), (3); 12 CFR 1266.2(c)(1), 1266.7(a), (g). The Bank Act, at 12 U.S.C. 1430(a)(3), and FHFA regulations, at 12 CFR 1266.7(a) and (b), specify the types of collateral that are eligible to secure advances. In addition to advances, other credit products offered by the FHLBanks to their members must also be fully secured. *See e.g.*, 12 CFR 1268.5(c)(1)(ii) (requiring that the credit enhancement provided by members selling mortgages to the FHLBanks under their acquired member assets programs be fully secured); 1269.2(b), 1269.3(a) (authorizing FHLBanks to issue standby letters of credit to members and housing associates only where their obligation thereunder is fully secured).

[8] 12 CFR 1239.30(b)(2).

gives a "haircut" to, the reported market or par value of pledged collateral to ensure that the liquidation value of pledged collateral exceeds the value of the product it is securing.[9]

Collateral policies differ across FHLBanks, often reflecting differences in the types of members served by each FHLBank, the risk tolerances of each FHLBank, and the methods and vendors used by each FHLBank to determine collateral lendable values. Key collateral policy differences include the various types of eligible collateral each FHLBank will accept, the levels of collateral discount required, and the conditions under which a member must deliver its collateral to the FHLBank to be able to borrow against it.[10]

Section 2 of this report provides an overview and analysis of the System's collateral by composition, collateral type, and other relevant categories. That section includes graphs and tables reporting collateral data for both the System and for individual FHLBanks. Section 3 is an appendix that provides additional figures and data related to the FHLBank System and the collateral pledged to FHLBanks. Section 4 provides a glossary and definitions of terms used throughout the report.

Section 2 – Analysis

Total advances at the FHLBanks as of year-end 2022 were $819.1 billion, an increase of about 133.2 percent from $351.3 billion as of year-end 2021.[11] Over the same period, the total UPB of the FHLBanks' eligible collateral increased to $4.05 trillion from $3.28 trillion, an increase of about 23.5 percent.[12] The total UPB of pledged collateral also increased. The reported borrowing capacity of that collateral was $2.90 trillion, up from $2.51 trillion as of year-end 2021.

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[9] The haircuts depend on many factors and may differ by FHLBank for similar collateral. These factors typically include the specific type of collateral pledged, the quality of the member's credit underwriting policies and practices, the method of securing the collateral pledged, the financial condition of the member, recent trends in asset values, and estimated losses under adverse macroeconomic conditions.

[10] Each FHLBank has a set of criteria under which it requires a member to deliver collateral to the FHLBank. For example, an FHLBank member's credit rating falling below a specific level can trigger required delivery by the member.

[11] Information on advances is based on data from the FHFA Call Report System (CRS). Unless otherwise noted, all other data is based on the Quarterly Collateral Survey. All volume changes and percentages are calculated prior to rounding.

[12] The UPB of eligible collateral excludes any known ineligible collateral and may account for ineligibility factors extrapolated from collateral reviews. Unless otherwise specified, reported collateral values reflect all eligible collateral pledged by all members and non-member housing associates.

Table 1: System Collateral ($T)

	2021	2022	Volume Change	Percent Change[13]
System Unpaid Principal Balance (UPB) Pledged	$3.66	$4.47	$0.81	22.32%
System Unpaid Principal Balance (UPB) Eligible	$3.28	$4.05	$0.77	23.66%
System Borrowing Capacity (BC)	$2.51	$2.90	$0.39	15.32%

FHLBank members pledge various types of collateral to the FHLBanks to secure advances and other FHLBank products. This report aggregates collateral into five general categories based on the most common collateral types. Several of these categories are further split into more granular subcategories. The categories (and subcategories) are:

- Single-family (SF) 1-4 unit residential first liens[14]
- Securities
    - Agency mortgage-backed securities (MBS)/collateralized mortgage obligations (CMOs)[15]
    - Non-MBS agency securities
    - Private-label Commercial MBS (CMBS)
    - Private-label MBS (PLMBS)
    - All other authorized securities (Other Securities)[16]
- Multifamily (MF) first and second liens
- Other real estate-related collateral (ORERC)
    - Commercial real estate (CRE) first and second liens
    - Closed-end SF second liens (SF second liens, home equity loans) and open-ended SF first and second liens (home equity lines of credit (HELOCS))
    - Land loans
    - Other ORERC[17]

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[13] Percent changes were calculated using unrounded figures.
[14] Single-family indicates fully disbursed, 1-4 unit first mortgage loans on improved residential property, including non-traditional loans, subprime loans, and government-guaranteed loans.
[15] Includes all Agency mortgage-backed securities and collateralized mortgage obligations, e.g., Fannie Mae, Freddie Mac, Ginnie Mae, etc.
[16] Other Securities include (among others) U.S. Treasuries, eligible municipal bonds, cash, and certificates of deposit.
[17] Other ORERC includes (among others) real estate construction loans, participation loans, and loans covered by a loss sharing agreement.

- Community financial institution (CFI) collateral[18]
  - Small business loans/securities
  - Small farm loans/securities
  - Small agribusiness loans/securities
  - Community development loans/securities
  - Not specified[19]

SF loan collateral remained the largest single collateral category at year-end 2022, accounting for approximately 49 percent of all eligible collateral pledged across the FHLBanks. Table 2 shows the composition of collateral pledged to the FHLBanks based on the categories above. The amount of SF loan collateral pledged increased by approximately $388 billion or 24.5 percent from year-end 2021 to year-end 2022. Other categories of collateral also generally experienced increases year-over-year. The largest percentage increase occurred in the securities collateral, where the total amount of securities collateral pledged increased approximately 64.6 percent from year-end 2021. In addition, PLMBS collateral pledged increased by over 210 percent, and non-MBS agency securities increased by over 78 percent.

[18] For 2022, a CFI is an FHLBank member whose deposits are insured under the Federal Deposit Insurance Act and that has average total assets less than $1.323 billion. 87 FR 1147 (Jan. 10, 2022). The FHLBanks are authorized to accept from CFI members (and their affiliates) additional types of collateral that would not otherwise be considered eligible as security for advances, including small business loans, small farm loans, small agribusiness loans, community development loans, and securities representing a whole interest in such loans. 12 U.S.C. 1430(a)(3)(E); 12 CFR 1266.7(b)(1).

[19] CFI collateral: "Not specified" is a broad category that addresses any FHLBanks not reporting the level of granularity in the above categories.

Table 2: System Eligible Collateral by Category ($B)[20]

Collateral Category	2021 Eligible Collateral	2021 Percent of Total Collateral	2022 Eligible Collateral	2022 Percent of Total Collateral	Change in Eligible Collateral (Volume)	Change in Eligible Collateral (Percent)
SF 1st lien	$1,583.6	48.3%	$1,971.6	48.7%	$388.0	24.5%
MF	$299.0	9.1%	$366.8	9.1%	$67.8	22.7%
ORERC: CRE	$692.0	21.1%	$767.9	19.0%	$75.9	11.0%
ORERC: HELOCS and SF 2nd lien	$143.5	4.4%	$154.9	3.8%	$11.3	7.9%
ORERC: Land	$67.6	2.1%	$79.9	2.0%	$12.3	18.2%
Other ORERC	$97.9	3.0%	$90.0	2.2%	-$7.9	-8.1%
CFI	$42.7	1.3%	$44.8	1.1%	$2.1	4.9%
Agency MBS/CMOs	$237.2	7.2%	$391.5	9.7%	$154.3	65.0%
Non-MBS Agency Securities	$20.4	0.6%	$36.5	0.9%	$16.1	78.7%
CMBS	$26.8	0.8%	$45.2	1.1%	$18.3	68.3%
PLMBS	$7.6	0.2%	$23.5	0.6%	$16.0	210.1%
Other Securities	$57.0	1.7%	$77.7	1.9%	$20.7	36.2%
Total	$3,275.4	100.0%	$4,050.3	100.0%	$774.9	23.7%

I. Distribution of Collateral by Type and FHLBank

The distribution of eligible collateral as of year-end 2022 varied across the FHLBanks. Mirroring the System, SF first lien loan collateral was the largest collateral category at ten of the FHLBanks. The FHLBank of Dallas was the only FHLBank that reported having more eligible CRE loan collateral ($146 billion) pledged than SF loan collateral ($145 billion). CRE loan collateral was the second largest collateral category at eight FHLBanks, and MF loan collateral was the second largest category at two FHLBanks (New York and Cincinnati). Four FHLBanks – Atlanta, Boston, Cincinnati, and New York – reported having no eligible CFI collateral pledged by their members. Table 3 provides more detail on the distribution of collateral at each of the 11 FHLBanks.

[20] Percentages were calculated using unrounded figures.

II. Member Lien and Collateral Reporting Status

An FHLBank secures advances and other collateralized products to a member through a lien agreement. There are two primary types of lien agreements:

- A blanket lien agreement occurs when the written agreement that creates the FHLBank's security interest provides that it applies to all of a member's assets or to all of a member's specific categories of assets.
- A specific lien agreement occurs when the written agreement that creates the FHLBank's security interest describes the specific assets that the member has pledged to the FHLBank as collateral.

When an FHLBank obtains a security interest in the assets described in the agreement, it acquires the right to liquidate any of those assets should the member default on its repayment obligation.[21]

[21] FHFA regulations require each FHLBank to execute a written security agreement with each borrowing member that, at a minimum, gives the FHLBank a "perfectible" security interest in the pledged collateral. 12 CFR 1266.2(c)(2), (3). Under the regulations an FHLBank may perfect its security interest in advances collateral at any time. 12 CFR 1266.9(a)(3). These and other provisions of the regulations recognize that each FHLBank generally may determine how and when to perfect its security interest. The manner in which an FHLBank obtains and perfects its security interest is governed by the Uniform Commercial Code (UCC), as enacted by the laws of the appropriate state. Regardless of the collateral pledge method, an FHLBank can perfect its security interest in any securities collateral or loan collateral by filing a UCC-1 financing statement in the appropriate jurisdiction, or by other methods that would give it a higher-priority perfected security interest than would perfection by filing (*see* FHFA Advisory Bulletin 2013-10 for further details).

Table 3: UPB of Eligible Collateral by FHLBank, 2022 ($B)[22]

Collateral Category	BOS	NYK	PIT	ATL	CIN	IND	CHI	DSM	DAL	TOP	SFR	Total
SF 1st lien	$118	$209	$167	$281	$315	$44	$94	$256	$145	$69	$274	$1,972
MF	$11	$83	$32	$15	$73	$10	$20	$35	$17	$9	$62	$367
ORERC: CRE	$24	$73	$103	$79	$56	$25	$36	$101	$146	$26	$99	$768
ORERC: HELOCS and SF 2nd lien	$14	$8	$36	$24	$22	$3	$9	$12	-	$5	$21	$155
ORERC: Land	-	-	$3	$0	$1	-	$3	$14	$55	$2	-	$80
Other ORERC	$2	$2	$0	$11	$2	$1	$6	$23	$39	$3	$1	$90
CFI	-	-	$2	-	-	$0	$7	$5	$7	$19	$4	$45
Agency MBS/CMOs	$15	$52	$4	$32	$28	$10	$10	$19	$117	$12	$92	$391
Non-MBS Agency Securities	$1	$9	$3	$1	$1	$3	$2	$3	$4	$1	$7	$37
CMBS	$1	$16	$2	$3	$5	$3	$3	$8	$3	$1	$0	$45
PLMBS	$0	$3	$4	$7	$2	$0	$1	$2	$2	$2	$1	$24
Other Securities	$5	$16	$1	$12	$4	$5	$13	$8	$7	$1	$4	$78
Total	$190	$471	$359	$466	$509	$107	$206	$486	$541	$150	$565	$4,050

[22] For the purposes of this report, a dash ("-") indicates no reported information, while a zero ("$0") indicates reported collateral that rounds to zero.

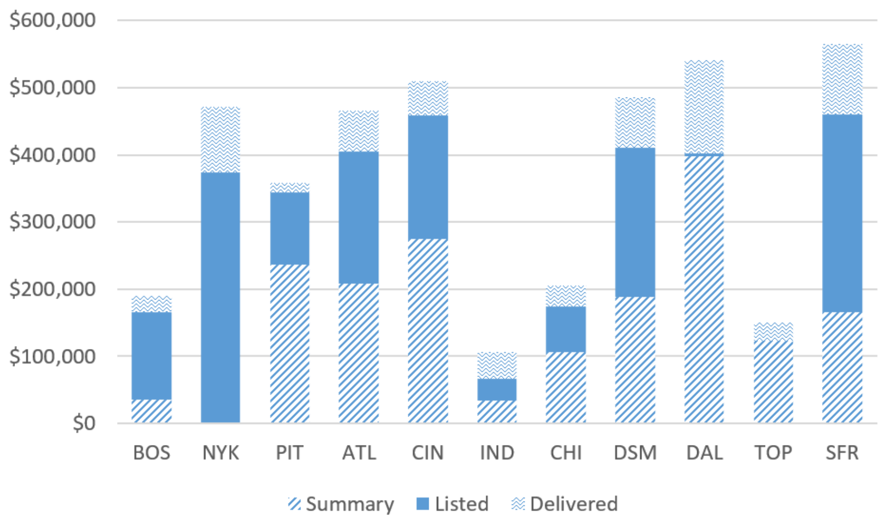
In addition to the lien agreements, the FHLBanks often take additional steps to protect themselves further, including summary reporting, listing, and delivery. Summary reporting is only available to members under a blanket lien agreement. Under summary reporting, an FHLBank has little information about the individual loans that secure the advances. A listing arrangement differs in that a member provides loan-level details about the collateral pledged. A listing arrangement can occur under either a blanket or specific lien agreement. An FHLBank may require a member to list collateral when the borrower's creditworthiness may be an issue, or a member may elect to list collateral with the FHLBank for another reason.

A delivery arrangement differs from both summary reporting and listing in that the FHLBank has possession of the collateral. A delivery arrangement requires that the member deliver to the FHLBank or the FHLBank's custodian some or all of the assets covered by the FHLBank's lien agreement. An FHLBank often requires delivery of collateral that is readily transferrable by the member or if the FHLBank believes the member presents a heightened credit risk. A delivery arrangement can occur under a blanket or specific lien. Delivery may result in an FHLBank obtaining "possession" of tangible collateral such as mortgage loan notes or "control" of securities that exist only in electronic format, both of which give the FHLBank a first priority perfected security interest in the collateral (that is superior to security interests perfected with a Uniform Commercial Code filing (UCC-1)) under the UCC.

Members may receive greater borrowing capacity when they agree to provide a listing of collateral (either under a blanket or specific lien) or delivery of collateral because these methods provide specific information about the collateral pledged to the FHLBank. This allows the FHLBank to make a more precise determination of the value of the collateral.

Figure 1 shows the distribution of collateral for each FHLBank by the collateral reporting status (i.e., summary reporting, listing, or delivery) rather than by member lien. As of year-end 2022, the FHLBanks of Dallas and Topeka reported that 70 percent or more of the UPB of eligible collateral is under summary reporting, while the FHLBank of New York only reported listed and delivered collateral, which is consistent with its practices. In addition to the FHLBank of New York, the FHLBanks of Boston and San Francisco also reported that members listed over 50 percent of these FHLBanks' eligible collateral. The FHLBank of Indianapolis reported the highest percentage of eligible collateral delivered, at approximately 38 percent. No other FHLBank reported having delivered collateral of more than 26 percent. The FHLBank of Indianapolis's higher than average share of securities as a percentage of total collateral pledged resulted in a higher proportion of delivered collateral, as all FHLBanks generally require members to provide securities under delivery.[23]

Figure 1: Distribution of UPB Eligible Collateral by Collateral Reporting Status ($M)



III. Haircuts

Generally, the FHLBanks apply a haircut to either the market value of eligible collateral or the UPB of eligible collateral. However, the FHLBanks have different collateral practices regarding eligibility, market valuations, and valuation caps, which affect each FHLBank's effective haircut differently. For the purposes of this report, the effective haircut is calculated as:

$$1 - \frac{Borrowing\ capacity}{Unpaid\ principal\ balance\ of\ Eligible\ Collateral}$$

This definition of a haircut identifies the difference between the reported UPB of eligible collateral and the borrowing capacity reported by the FHLBank for a collateral line item. The borrowing capacity is the amount each FHLBank is willing to lend to that member for that collateral type. When aggregating by category, each of the line-item haircuts is weighted by its share of the UPB of eligible collateral within that collateral category.

[23] The FHLBank of Indianapolis also has a higher level of CRE collateral pledged under delivery arrangements (including from insurance companies), further increasing its delivery percentage.

The effective haircuts applied by the FHLBanks varied substantially based on the type of collateral pledged. Table 4 provides details on the effective haircuts for collateral categories. Securities generally have the lowest weighted average effective haircuts. With the exception of PLMBS with an approximate weighted average effective haircut of 37 percent, the weighted average effective haircuts for securities range from about 17 to 22 percent. Loan collateral has weighted average effective haircuts ranging from approximately 27 percent for SF first liens to above 50 percent for ORERC land loans (both farm and non-farm). Overall, the weighted average effective haircuts generally increase with the perceived risk of the collateral type. The weighted average effective haircut for most security types increased since 2021, largely due to the increasing interest rate environment resulting in lower market valuations relative to the policy haircut levels. The weighted average effective haircut depends on the UPB of eligible collateral and the borrowing capacity, which will generally decrease as market values decline, resulting in higher effective haircuts.

Table 4: Weighted Haircuts by Collateral Type

Collateral Category	Weighted Average Effective Haircut
SF 1st lien	26.9%
MF	29.1%
ORERC: CRE	32.9%
ORERC: HELOCS and SF 2nd lien	38.1%
ORERC: Land	52.5%
Other ORERC	39.9%
CFI	42.8%
Agency MBS/CMOs	17.5%
Non-MBS Agency Securities	17.0%
CMBS	22.3%
PLMBS	36.5%
Other Securities	20.6%

IV. Single-Family Collateral

SF loan collateral includes a wide variety of residential loan types including traditional, subprime, nontraditional, held for sale, and government guaranteed loans (e.g., loans insured or guaranteed by the Federal Housing Administration, the U.S. Department of Veterans Affairs, etc.). While the Quarterly Collateral Survey includes several subtypes for SF loan collateral (traditional, subprime, nontraditional, subprime and nontraditional, and other residential loans), not all FHLBanks segment their pledged collateral at this level of granularity.[24] For the purposes of this report, all of these subtypes of SF loan collateral are combined into a single SF category for comparison purposes.

SF loan collateral represents the largest category of eligible collateral pledged to the FHLBanks at approximately 49 percent of all eligible collateral pledged to the FHLBanks in 2022, a slight increase in percentage terms over year-end 2021 (see Table 2). While SF loan collateral increased in absolute terms by about $388 billion in the System, the proportion of SF loan collateral to all collateral in the System only changed slightly, as most collateral types exhibited large increases in 2022. Table 5 provides more information on the eligible UPB of SF loan collateral.

Table 5: Single Family UPB Eligible by FHLBank ($M)

Bank	2021	2022	Change in Eligible Collateral (Volume)	Change in Eligible Collateral (Percent)[25]
BOS	$102,694.2	$118,289.2	$15,595.0	15.2%
NYK	$174,507.0	$209,300.1	$34,793.1	19.9%
PIT	$138,943.5	$166,623.8	$27,680.3	19.9%
ATL	$210,469.8	$280,814.0	$70,344.2	33.4%
CIN	$259,951.9	$315,269.7	$55,317.8	21.3%
IND	$38,606.6	$43,968.9	$5,362.2	13.9%
CHI	$80,080.9	$93,567.7	$13,486.7	16.8%
DSM	$184,971.7	$255,511.0	$70,539.3	38.1%
DAL	$128,214.8	$144,963.1	$16,748.3	13.1%
TOP	$60,351.6	$69,131.8	$8,780.2	14.5%
SFR	$204,795.7	$274,171.2	$69,375.5	33.9%
Total	$1,583,587.7	$1,971,610.4	$388,022.6	24.5%

SF loan collateral is the single largest collateral source at every FHLBank except the FHLBank of Dallas. As a percentage of all eligible collateral, it ranges from around 27 percent at the FHLBank of Dallas to around 62 percent at the FHLBank of Boston as of year-end 2022. The amount of SF loan collateral as a percentage of all eligible collateral changed by less than 5

[24] For example, one FHLBank may report subprime loan collateral separately while another FHLBank may report subprime along with other SF subtypes together.
[25] Percent changes were calculated using unrounded figures.

percentage points at each of the FHLBanks from year-end 2021 to year-end 2022. See Table 6 for additional details.

Table 6: Single Family Percentage of Eligible Collateral

Bank	2021	2022	Change[26]
BOS	62.4%	62.1%	-0.2%
NYK	44.0%	44.4%	0.4%
PIT	46.5%	46.4%	0.0%
ATL	56.0%	60.3%	4.3%
CIN	60.7%	61.9%	1.2%
IND	44.2%	41.2%	-2.9%
CHI	47.1%	45.4%	-1.7%
DSM	47.7%	52.5%	4.8%
DAL	30.1%	26.8%	-3.3%
TOP	49.0%	46.0%	-3.0%
SFR	49.1%	48.5%	-0.5%

V. Multifamily Collateral

System-wide, MF loan collateral accounted for approximately 9 percent of eligible collateral pledged at year-end 2022, largely unchanged from year-end 2021. However, the volume of eligible MF loan collateral increased almost 23 percent year over year. The FHLBank of Topeka saw the largest percentage increase in eligible MF loan collateral at 77 percent, while the FHLBank of San Francisco saw the largest volume increase at over $11 billion. Table 7 provides more detail on MF loan collateral at the FHLBanks.

Table 7: Multifamily UPB Eligible by FHLBank ($M)

Bank	2021	2022	Change in Eligible Collateral (Volume)	Change in Eligible Collateral (Percent)[27]
BOS	$6,349.4	$11,158.5	$4,809.1	75.7%
NYK	$74,177.5	$82,523.3	$8,345.8	11.3%
PIT	$24,872.1	$32,137.8	$7,265.6	29.2%

[26] Ibid.
[27] Percent changes were calculated using unrounded figures.

Bank	2021	2022	Change in Eligible Collateral (Volume)	Change in Eligible Collateral (Percent)[27]
ATL	$12,623.3	$14,621.2	$1,997.9	15.8%
CIN	$61,479.5	$72,951.7	$11,472.2	18.7%
IND	$7,489.4	$10,248.8	$2,759.4	36.8%
CHI	$17,166.3	$20,476.5	$3,310.2	19.3%
DSM	$24,533.4	$35,102.0	$10,568.5	43.1%
DAL	$14,827.4	$16,730.1	$1,902.7	12.8%
TOP	$4,862.0	$8,606.9	$3,744.9	77.0%
SFR	$50,656.1	$62,286.8	$11,630.7	23.0%
Total	$299,036.5	$366,843.6	$67,807.1	22.7%

Additionally, the FHLBanks of New York, Cincinnati, and San Francisco reported MF loan collateral of more than 10 percent of eligible collateral. Table 8 provides more detail on the percentage of MF loan collateral at each of the FHLBanks.

Table 8: Multifamily Percentage of Eligible Collateral

Bank	2021	2022	Change[28]
BOS	3.9%	5.9%	2.0%
NYK	18.7%	17.5%	-1.2%
PIT	8.3%	9.0%	0.6%
ATL	3.4%	3.1%	-0.2%
CIN	14.4%	14.3%	0.0%
IND	8.6%	9.6%	1.0%
CHI	10.1%	9.9%	-0.2%
DSM	6.3%	7.2%	0.9%
DAL	3.5%	3.1%	-0.4%
TOP	3.9%	5.7%	1.8%
SFR	12.1%	11.0%	-1.1%

VI. Other Real Estate-Related Collateral (ORERC)

ORERC collateral includes all real estate-related, non-residential whole loans, including CRE as well as participation loans and residential loans not included in the SF first liens and MF loan categories (e.g., HELOCs). To qualify as ORERC, by statute, an asset must have a readily

[28] Percent changes were calculated using unrounded figures.

ascertainable value and an FHLBank must be able to perfect a security interest in the collateral.[29] FHFA regulations further require that the collateral can be reliably discounted to account for liquidation and other risks and can be liquidated in due course.[30] Among the eligible collateral types accepted by the FHLBanks, the FHLBanks generally apply larger haircuts to the value of ORERC to secure advances relative to securities and SF loans. All FHLBanks report ORERC securing advances.

Overall, the amount of ORERC collateral increased in the System by approximately 9 percent between 2021 and 2022. The FHLBank of Topeka had the largest increase in ORERC collateral in percentage terms, and the FHLBank of Dallas had the largest increase by volume. Table 9 provides more details on the ORERC collateral at each FHLBank.

Table 9: ORERC UPB Eligible by FHLBank ($M)

Bank	2021	2022	Change in Eligible Collateral (Volume)	Change in Eligible Collateral (Percent)[31]
BOS	$34,660.3	$39,500.1	$4,839.8	14.0%
NYK	$81,693.2	$82,813.7	$1,120.6	1.4%
PIT	$127,181.8	$142,850.5	$15,668.7	12.3%
ATL	$116,523.6	$114,796.6	-$1,726.9	-1.5%
CIN	$77,444.4	$81,041.8	$3,597.4	4.6%
IND	$26,481.1	$29,686.6	$3,205.5	12.1%
CHI	$46,485.8	$55,086.2	$8,600.4	18.5%
DSM	$142,169.6	$150,039.3	$7,869.8	5.5%
DAL	$208,207.2	$239,703.8	$31,496.7	15.1%
TOP	$29,051.5	$36,099.1	$7,047.6	24.3%
SFR	$111,159.1	$121,053.4	$9,894.2	8.9%
Total	$1,001,057.6	$1,092,671.2	$91,613.6	9.2%

Most FHLBanks reported that ORERC represents 35 percent or less of eligible collateral. However, the FHLBanks of Dallas and Pittsburgh reported that ORERC collateral represented approximately 44 and 40 percent of all eligible collateral pledged as of year-end 2022, respectively. Table 10 provides more details.

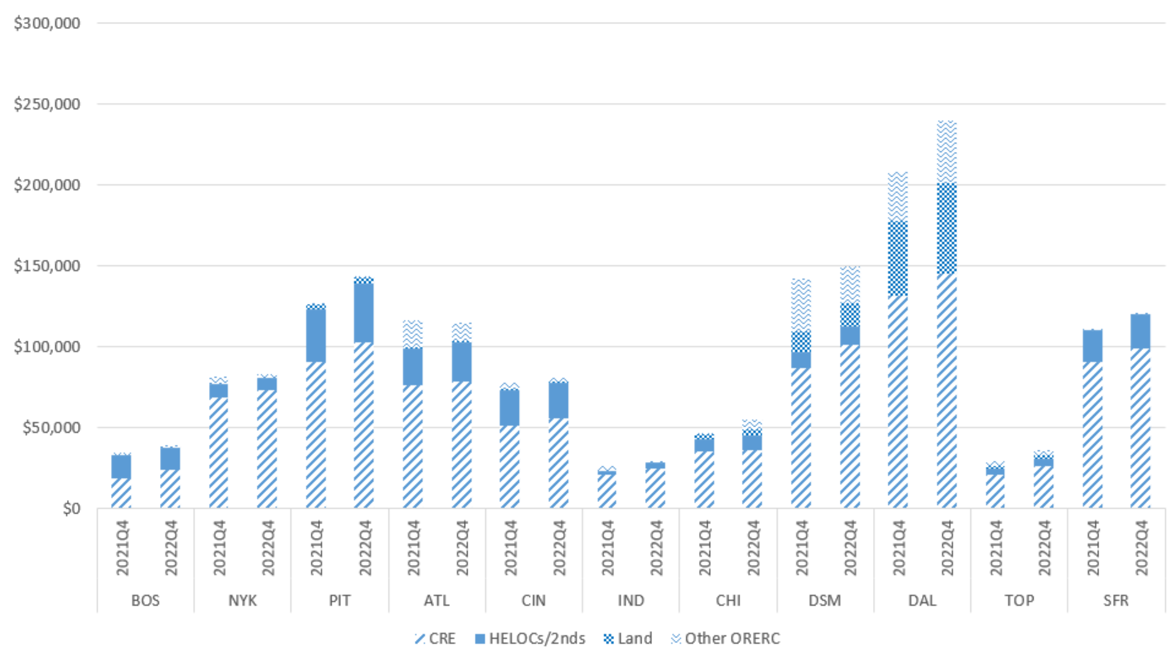
[29] 12 U.S.C. § 1430(a)(3)(D).
[30] 12 CFR 1266.7(a)(4)(i)(A).
[31] Percent changes were calculated using unrounded figures.

Table 10: ORERC Percentage of Eligible Collateral

Bank	2021	2022	Change
BOS	21.1%	20.7%	-0.3%
NYK	20.6%	17.6%	-3.0%
PIT	42.5%	39.8%	-2.7%
ATL	31.0%	24.7%	-6.3%
CIN	18.1%	15.9%	-2.2%
IND	30.3%	27.8%	-2.5%
CHI	27.4%	26.7%	-0.6%
DSM	36.7%	30.9%	-5.8%
DAL	48.9%	44.3%	-4.6%
TOP	23.6%	24.0%	0.4%
SFR	26.6%	21.4%	-5.2%

CRE loans remain the largest single ORERC collateral category and the second largest collateral category System-wide as of year-end 2022. HELOCs and SF second liens remain the second largest category of ORERC collateral and fifth largest category of collateral System-wide. Figure 2 provides details on the breakdown of ORERC collateral by Bank and the year-over-year change.

Figure 2: Types of ORERC Collateral by Bank - 2021 Q4 vs 2022 Q4 ($M)



CRE loans are also the largest ORERC collateral category at all FHLBanks, with seven FHLBanks reporting $50 billion or more in eligible CRE collateral. The FHLBanks of Pittsburgh, Atlanta, San Francisco, and Cincinnati account for over half of the System's eligible HELOC and SF second lien collateral. Land loans represented a noteworthy amount of collateral at only two FHLBanks: Des Moines and Dallas. These two FHLBanks account for 87 percent of all land loan collateral System-wide.[32] ORERC also includes construction loans, participation loans, loans covered by loss sharing agreement, and student loans.

VII. CFI Collateral

The FHLBanks accept from CFI members (and their affiliates) additional types of collateral that would otherwise not be eligible collateral as security for advances, including small business loans, small farm loans, small agribusiness loans and community development loans, and securities representing a whole interest in such loans.[33] Overall, the FHLBanks reported approximately $45 billion in eligible CFI collateral pledged, which represents less than 2 percent of the total UPB of eligible collateral System-wide. Eligible CFI collateral pledged to the FHLBanks decreased year over year. Table 11 provides more details on the CFI collateral pledged in the System.

Typically, the FHLBanks require larger haircuts for CFI collateral, and four of the FHLBanks – Atlanta, Boston, Cincinnati, and New York – reported no eligible CFI collateral pledged as of year-end 2022. The FHLBanks of Topeka, Chicago, and Dallas reported approximately $19 billion, $7 billion, and $7 billion in eligible CFI collateral pledged, respectively, and accounted for around 75 percent of all eligible CFI collateral pledged to the System. No other FHLBank held more than $5 billion of eligible CFI collateral in its collateral portfolio. All FHLBanks saw an increase in eligible CFI collateral with the exception of the FHLBank of San Francisco. The FHLBank of Indianapolis saw the largest percentage increase in eligible CFI collateral at approximately 32 percent.

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[32] ORERC: Land collateral is loans secured by unimproved or agricultural land (non-CFI). This includes farm real estate loans not provided as community investment loans.
[33] Several FHLBanks also accept farmland loans from non-CFI members, which is included in the ORERC category.

Table 11: CFI UPB Eligible by FHLBank ($M)

Bank	2021	2022	Change in Eligible Collateral (Volume)	Change in Eligible Collateral (Percent)[34]
BOS	-	-	-	-
NYK	-	-	-	-
PIT	$2,119.2	$2,414.6	$295.4	13.9%
ATL	-	-	-	-
CIN	-	-	-	-
IND	$192.7	$254.6	$61.9	32.1%
CHI	$7,065.5	$7,200.9	$135.4	1.9%
DSM	$4,513.2	$4,836.0	$322.9	7.2%
DAL	$6,108.3	$7,194.6	$1,086.3	17.8%
TOP	$17,329.0	$19,292.5	$1,963.5	11.3%
SFR	$5,347.9	$3,574.5	-$1,773.4	-33.2%
Total	$42,675.7	$44,767.8	$2,092.1	4.9%

The FHLBank of Topeka has the largest percentage of eligible collateral in the CFI category at around 13 percent. No other FHLBank has CFI collateral as a percentage of eligible collateral larger than four percent. Table 12 provides more detail on CFI collateral as a percentage of eligible collateral at each FHLBank.

[34] Percent changes were calculated using unrounded figures.

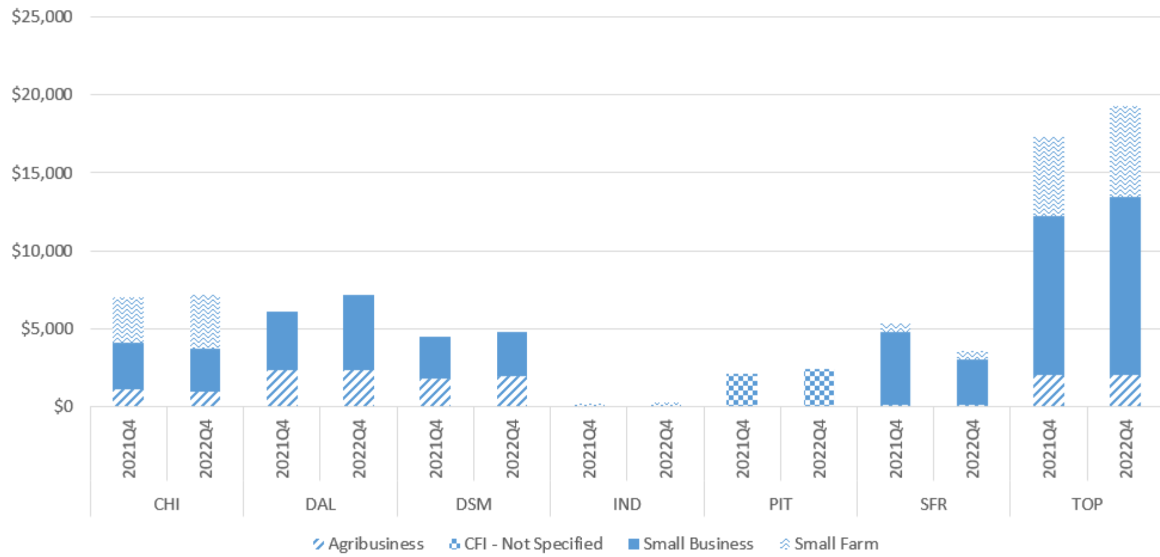
Table 12: CFI Percentage of Eligible Collateral

Bank	2021	2022	Change[35]
BOS	-	-	-
NYK	-	-	-
PIT	0.7%	0.7%	0.0%
ATL	-	-	-
CIN	-	-	-
IND	0.2%	0.2%	0.0%
CHI	4.2%	3.5%	-0.7%
DSM	1.2%	1.0%	-0.2%
DAL	1.4%	1.3%	-0.1%
TOP	14.1%	12.8%	-1.2%
SFR	1.3%	0.6%	-0.6%

The largest category of CFI collateral is small business loans, which represented approximately 56 percent of all eligible CFI collateral as of year-end 2022. While small business loans are also the largest CFI collateral category at the majority of FHLBanks, the FHLBank of Pittsburgh reports all of its CFI collateral in aggregate (CFI - not specified) rather than segmenting it. Additionally, small farm loans represented the largest category at the FHLBanks of Chicago and Indianapolis. Across the System, agribusiness and small farm loans accounted for approximately 16 percent and 22 percent of CFI collateral, respectively. The FHLBanks did not report any collateral in the community development category. Figure 3 provides details on the breakdown of CFI collateral by FHLBank and the year-over-year change.

[35] Ibid.

Figure 3: Types of CFI Collateral by FHLBank – 2021 Q4 vs 2022 Q4 ($M)[36]



VIII. Securities Collateral

Members pledge many different types of securities to the FHLBanks as collateral for advances and other collateralized products, including cash and certificates of deposit, Treasuries, Agency MBS/CMOs, non-MBS agency securities, CMBS, PLMBS, and others. System-wide, eligible securities collateral increased in total UPB by almost 65 percent from 2021 to 2022. The increases by FHLBank ranged from around 2 percent to 149 percent. The FHLBank of Dallas saw the largest dollar volume increase, while the FHLBank of Pittsburgh saw the largest percentage increase. All FHLBanks saw an increase in the dollar value of eligible securities collateral from 2021 to 2022. Table 13 provides more detail on the securities collateral pledged in the System and at each FHLBank.

While securities represented approximately 14 percent of eligible collateral across the System, they represented greater than 14 percent of collateral at four FHLBanks. The FHLBank of Dallas reported eligible securities collateral at around 25 percent of total eligible collateral, the FHLBanks of New York and Indianapolis reported around 21 percent, and the FHLBank of San Francisco reported around 18 percent. Table 14 provides more details.

[36] Data are included in Table 17 in the appendix. FHLBanks with no reported CFI collateral were excluded from this figure.

Table 13: Securities UPB Eligible by FHLBank ($M)

Bank	2021	2022	Change in Eligible Collateral (Volume)	Change in Eligible Collateral (Percent)[37]
BOS	$20,951.3	$21,452.5	$501.3	2.4%
NYK	$66,381.4	$96,642.7	$30,261.3	45.6%
PIT	$5,916.3	$14,726.3	$8,810.0	148.9%
ATL	$36,336.1	$55,360.5	$19,024.4	52.4%
CIN	$29,134.2	$40,071.8	$10,937.6	37.5%
IND	$14,659.0	$22,497.8	$7,838.8	53.5%
CHI	$19,159.3	$29,634.9	$10,475.6	54.7%
DSM	$31,312.3	$40,769.0	$9,456.7	30.2%
DAL	$68,195.9	$132,298.8	$64,103.0	94.0%
TOP	$11,653.6	$17,242.0	$5,588.3	48.0%
SFR	$45,365.4	$103,693.7	$58,328.3	128.6%
Total	$349,064.8	$574,389.9	$225,325.1	64.6%

Table 14: Securities Percentage of Eligible Collateral

Bank	2021	2022	Change[38]
BOS	12.7%	11.3%	-1.5%
NYK	16.7%	20.5%	3.8%
PIT	2.0%	4.1%	2.1%
ATL	9.7%	11.9%	2.2%
CIN	6.8%	7.9%	1.1%
IND	16.8%	21.1%	4.3%
CHI	11.3%	14.4%	3.1%
DSM	8.1%	8.4%	0.3%
DAL	16.0%	24.5%	8.4%
TOP	9.5%	11.5%	2.0%
SFR	10.9%	18.4%	7.5%

Within securities collateral, Agency MBS/CMOs constitute approximately 68 percent of all eligible securities pledged to the FHLBanks as of year-end 2022. Agency MBS/CMOs include all Agency mortgage-backed securities and collateralized mortgage obligations (e.g., Fannie

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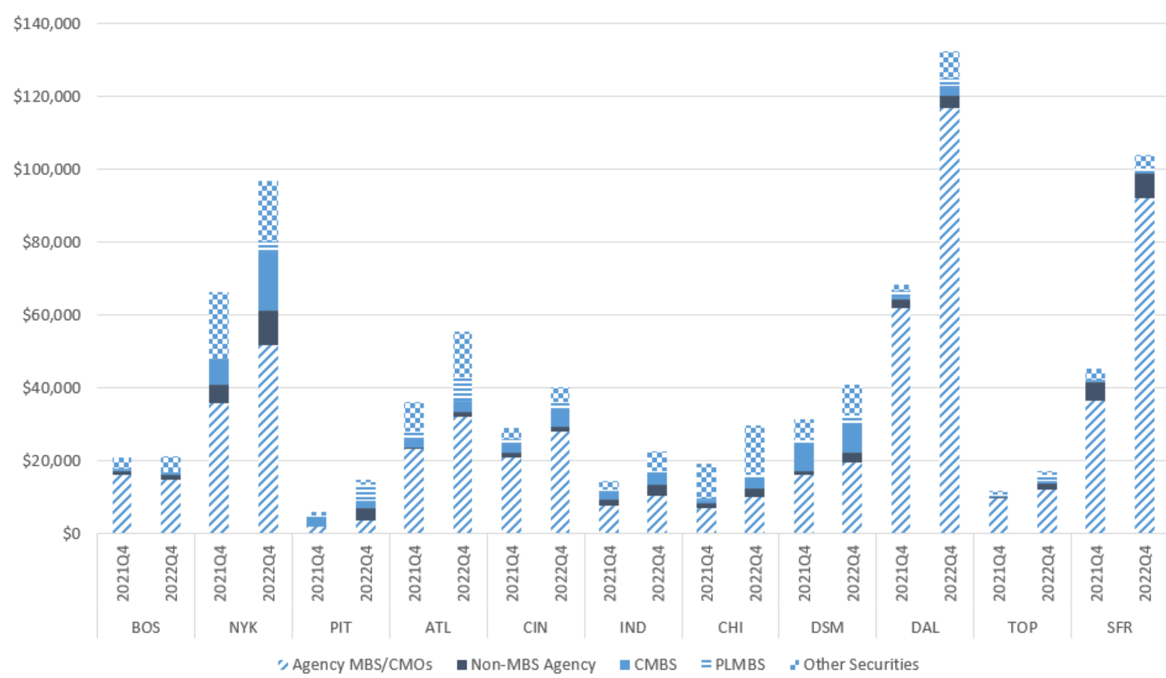
[37] Percent changes were calculated using unrounded figures.
[38] Ibid.

Mae, Freddie Mac, Ginnie Mae, etc.).[39] Non-MBS agency securities are an additional 6 percent of all eligible securities pledged to the FHLBanks, representing the fourth largest category. Other securities, the second largest category, represent approximately 14 percent of eligible securities pledged to the FHLBanks.[40] The third largest category, CMBS, represents around 8 percent of all eligible securities pledged as collateral. PLMBS is the fifth largest category and represents approximately 4 percent of all eligible securities pledged as collateral. The FHLBank of Dallas saw the largest dollar volume increase in Agency MBS/CMOs due to higher amounts of Agency MBS/CMOs pledged the prior year to the Bank and the large percentage increase across all securities categories at the Bank. The FHLBank of San Francisco saw the largest percent increase in Agency MBS/CMOs. Figure 4 provides more detail on the securities collateral breakdown by type of securities.

Figure 4: Types of Securities Collateral by FHLBank - 2021 Q4 vs 2022 Q4 ($M)



[39] This includes Agency MF MBS.
[40] Other Securities include (among others) U.S. Treasuries, eligible municipal bonds, cash, and certificates of deposit.

Section 3 – Appendix

Figure 5: FHLBank System Map

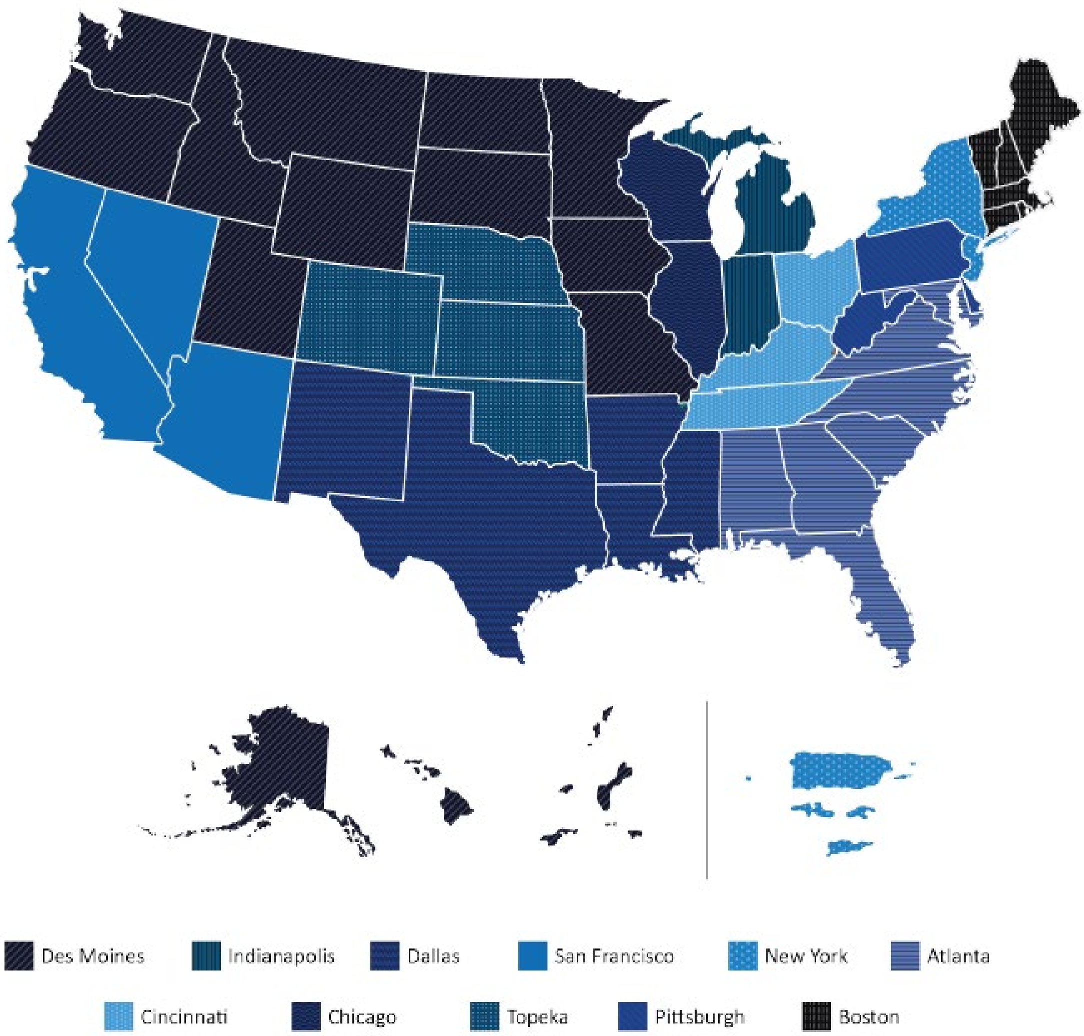


Table 15: Distribution of UPB Eligible Collateral by Collateral Reporting Status ($M)

Bank	Summary	Listed	Delivered	Total
BOS	$35,586	$129,494	$25,320	$190,400
NYK	-	$373,876	$97,404	$471,280
PIT	$236,648	$107,299	$14,806	$358,753
ATL	$208,112	$196,362	$61,118	$465,592
CIN	$275,046	$183,197	$51,091	$509,335
IND	$34,187	$31,886	$40,583	$106,657
CHI	$106,552	$68,285	$31,129	$205,966
DSM	$188,167	$222,519	$75,571	$486,257
DAL	$397,466	$4,432	$138,993	$540,891
TOP	$123,199	-	$27,174	$150,372
SFR	$165,670	$295,128	$103,981	$564,780

Table 16: Types of ORERC Collateral by Bank - 2021 Q4 vs 2022 Q4 ($M)

Bank	Period	CRE	HELOCs/ 2nds	Land	Other ORERC
BOS	2021Q4	$18,873	$14,071	$0	$1,717
	2022Q4	$23,681	$14,198	$0	$1,622
NYK	2021Q4	$68,755	$8,201	$0	$4,738
	2022Q4	$73,122	$7,865	$0	$1,827
PIT	2021Q4	$90,365	$32,943	$3,221	$653
	2022Q4	$102,993	$36,393	$3,461	$4
ATL	2021Q4	$75,957	$23,173	$301	$17,092
	2022Q4	$78,827	$24,287	$352	$11,330
CIN	2021Q4	$51,159	$22,324	$689	$3,273
	2022Q4	$55,762	$22,272	$822	$2,186
IND	2021Q4	$20,869	$2,458	$0	$3,154
	2022Q4	$24,913	$3,461	$0	$1,313
CHI	2021Q4	$35,508	$7,663	$2,606	$709
	2022Q4	$36,472	$8,802	$3,486	$6,326
DSM	2021Q4	$87,259	$9,519	$12,744	$32,648
	2022Q4	$101,020	$11,568	$14,243	$23,208
DAL	2021Q4	$131,356	$0	$46,239	$30,613
	2022Q4	$145,562	$0	$55,403	$38,738
TOP	2021Q4	$20,891	$3,735	$1,832	$2,593
	2022Q4	$26,273	$4,801	$2,178	$2,848
SFR	2021Q4	$91,013	$19,433	$0	$712
	2022Q4	$99,280	$21,208	$0	$565

Table 17: Types of CFI Collateral by FHLBank – 2021 Q4 vs 2022 Q4 ($M)

Bank	Period	Community Development	Agri-business	CFI - Not Specified	Small Business	Small Farm
CHI	2021Q4	-	$1,108	$0	$3,026	$2,931
	2022Q4	-	$958	$0	$2,799	$3,444
DAL	2021Q4	-	$2,345	$0	$3,764	$0
	2022Q4	-	$2,327	$0	$4,868	$0
DSM	2021Q4	-	$1,832	$26	$2,656	$0
	2022Q4	-	$1,937	$40	$2,859	$0
IND	2021Q4	-	$0	$0	$18	$175
	2022Q4	-	$0	$0	$23	$231
PIT	2021Q4	-	$0	$2,119	$0	$0
	2022Q4	-	$0	$2,415	$0	$0
SFR	2021Q4	-	$168	$0	$4,623	$557
	2022Q4	-	$143	$0	$2,937	$494
TOP	2021Q4	-	$2,073	$0	$10,137	$5,119
	2022Q4	-	$2,071	$0	$11,426	$5,795

Table 18: Types of Securities Collateral by FHLBank - 2021 Q4 vs 2022 Q4 ($M)

Bank	Period	Agency MBS/ CMOs	Non-MBS Agency	CMBS	PLMBS	Other Securities
BOS	2021Q4	$16,323	$950	$458	$209	$3,012
	2022Q4	$14,899	$1,278	$576	$5	$4,695
NYK	2021Q4	$35,790	$5,263	$6,859	$0	$18,469
	2022Q4	$51,741	$9,350	$16,395	$2,731	$16,426
PIT	2021Q4	$2,008	$108	$2,537	$338	$926
	2022Q4	$3,828	$3,234	$2,048	$4,351	$1,265
ATL	2021Q4	$23,172	$530	$2,471	$1,873	$8,290
	2022Q4	$32,075	$1,239	$3,080	$6,650	$12,317
CIN	2021Q4	$21,060	$1,339	$2,342	$1,334	$3,060
	2022Q4	$27,971	$1,348	$5,066	$1,873	$3,814
IND	2021Q4	$7,706	$1,784	$2,371	$214	$2,583
	2022Q4	$10,407	$3,194	$3,176	$452	$5,270
CHI	2021Q4	$7,020	$1,319	$978	$569	$9,274
	2022Q4	$10,140	$2,326	$2,973	$884	$13,311
DSM	2021Q4	$16,114	$1,146	$7,775	$654	$5,624
	2022Q4	$19,459	$2,719	$8,144	$2,033	$8,414
DAL	2021Q4	$61,760	$2,341	$794	$1,775	$1,526
	2022Q4	$116,635	$3,546	$2,519	$2,171	$7,428
TOP	2021Q4	$9,654	$524	$191	$288	$996
	2022Q4	$12,301	$1,376	$768	$1,631	$1,167
SFR	2021Q4	$36,567	$5,143	$71	$339	$3,245
	2022Q4	$91,994	$6,934	$453	$762	$3,550

Section 4 – Glossary

Advance – A secured extension of credit or loan from an FHLBank to a member or housing associate.

Agency Mortgage-Backed Securities (MBS) and Collateralized Mortgage Obligations (CMOs) – MBS and CMOs issued, insured, or guaranteed by Fannie Mae, Freddie Mac, or the U.S. Government or a U.S. Agency thereof.

Blanket lien – A form of collateral security agreement under which the member grants an FHLBank a security interest in all or most of its assets, or one or more broad categories of assets, to secure advances.

Borrowing capacity – The lendable value of collateral pledged based on member and collateral type, net of haircuts and all other adjustments.

Community Financial Institution (CFI) – A member, the deposits of which are insured under the Federal Deposit Insurance Act, that has average total assets of $1 billion or less, based on an average of total assets over the last three years. FHFA is required to adjust the $1 billion asset threshold annually, based on the rate of inflation. For 2022, FHFA increased the CFI asset cap to $1,323,000,000, which reflects a 6.8 percent increase in the unadjusted CPI-U from November 2020 to November 2021. FHLBank members that are CFIs may pledge small business loans, small farm loans, small agribusiness loans, and community development loans, all of which may be fully secured by collateral other than: (1) real estate, and (2) securities representing a whole interest in such loans.

Haircut – The collateral discount applied to pledged collateral to provide borrowing capacity to a member to account for different risks including, but not limited to, the risk of collateral value decline. Initial collateral borrowing capacity is determined by subtracting the collateral haircut from 100 percent of either the unpaid principal balance of eligible collateral or the market value of eligible collateral.

Housing Associate – A housing associate is a non-member entity to which an FHLBank may make advances if it meets specific requirements in FHFA regulations. Housing associates are often state housing finance agencies.

Market value of eligible collateral – The total market value of all collateral pledged and eligible. If market value is not available or the collateral was not priced, the value defaults to the UPB.

Member – A financial institution that has been approved for membership and has purchased stock in an FHLBank.

Nontraditional mortgage loans – Nontraditional mortgage loans include those that allow negative amortization or the deferment of payments of principal or interest.

Other Real Estate-Related Collateral (ORERC) – As defined under 12 CFR 1266.7(a)(4), eligible ORERC may include but is not limited to: PLMBS not otherwise eligible, second mortgage loans including home equity loans, commercial real estate loans, and mortgage loan participations. Such collateral may be eligible provided that it has a readily ascertainable value, can be reliably discounted to account for liquidation and other risks, can be liquidated in due course, and the FHLBank can perfect a security interest in such collateral. For purposes of this report, the ORERC section focuses on loan collateral while any ORERC securities are included in the Securities section.

Specific lien – A form of collateral security agreement under which the member grants an FHLBank a security interest in a specific set or list of assets, to secure advances.

Subprime mortgage loan – A subprime loan generally is a loan to a borrower having a credit score below a threshold level. Because there is not standard threshold score that defines a subprime loan, threshold levels may vary within limits from lender to lender.

UPB of eligible collateral – The total unpaid principal balance of all collateral pledged and eligible. This definition excludes any ineligible collateral and accounts for any ineligibility factors determined from collateral reviews by the FHLBanks.