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Natalie Leonard
*Yale School of Management*



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# United States: Federal Home Loan Bank Advances, 2007–2009[1]

*Natalie Leonard*[2]

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**Abstract**

In response to the Global Financial Crisis (2007–2009), financial institutions exposed to the subprime mortgage market faced a loss of confidence by investors and generalized stress in funding markets, restricting financial institutions access to lending. Stigma at the Federal Reserve (the Fed) discount window precluded these financial institutions from turning to the Fed for funding. However, the Federal Home Loan Banks (FHLBanks), a system of cooperatively owned, government-sponsored wholesale banks, served as a significant source of liquidity for their 8,000 member institutions, including commercial and community banks, insurance companies, and thrifts. Between June 2007 and September 2008, "advances"—over-collateralized loans—increased from $640 billion to $1.01 trillion. These loans acted as a wholesale funding source when the Fed's discount window remained unattractive, and the Fed had yet to intervene by creating novel liquidity facilities.

**Keywords:** broad-based emergency liquidity, Federal Home Loan Banks, mortgage-backed securities, lender of last resort

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[1] This case study is part of the Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering broad-based emergency lending programs. Cases are available from the *Journal of Financial Crises* at
https://elischolar.library.yale.edu/journal-of-financial-crises/.

[2] Research Associate, YPFS, Yale School of Management.

# Overview

The Federal Home Loan Bank (FHLB) System was chartered in 1932 to provide liquidity to community financial institutions including thrifts (savings and loans) invested in mortgage and residential related assets (Flannery and Frame 2006, 33). During the Global Financial Crisis (GFC), the system was comprised of 12 regional FHLBanks and the system's fiscal agent, the Office of Finance (see Figure 1). Each FHLBank was a government-sponsored enterprise (GSE) cooperatively owned and managed by member financial institutions (Flannery and Frame 2006, 38). FHLBanks primarily extended liquidity through "advances"—over-collateralized lending collateralized by mortgage-related assets (Flannery and Frame 2006, 33).

Through a series of acts in the 1980s and 1990s, the FHLB System evolved from providing liquidity to mainly thrifts, to also providing liquidity to larger commercial banks, community banks, and credit unions (Stojanovic, Vaughan, and Yeager 2008, 681).

In response to market stress during the GFC, stigma associated with the discount window prevented some member financial institutions from turning to the Federal Reserve (the Fed) for liquidity; other FHLBank members were ineligible for the discount window (Ashcraft, Bech, and Frame 2008, 2). As a result, FHLB member institutions increasingly turned to the FHLBanks for financing (Narajabad and Gissler 2017a).

During the GFC, FHLB advances increased from $640 billion in June 2007 to a high of $1.01 trillion in September 2008 (Narajabad and Gissler 2017a). At peak, advances represented 70.6% of FLHBank assets (Narajabad and Gissler 2017a). While the law requires that advances only be used to finance

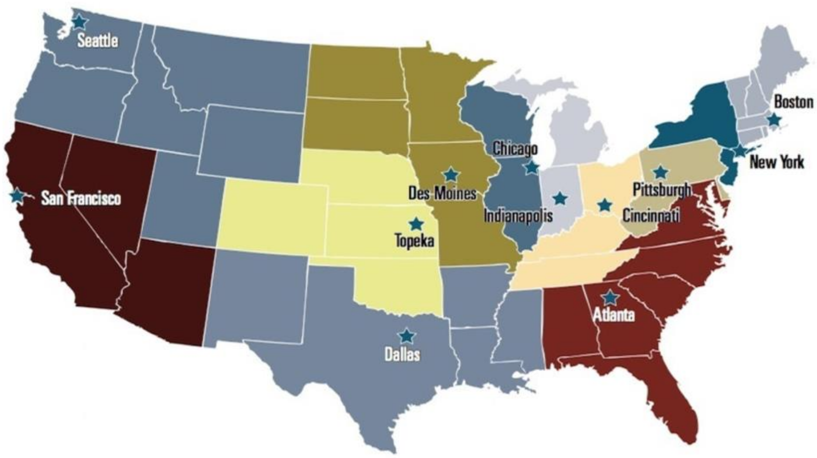
**Key Terms**

Purpose: To provide liquidity to member financial institutions primarily invested in mortgage and residential housing related assets.

| | |
|---|---|
| Launch Dates | Not applicable |
| Expiration Dates | Not applicable |
| Legal Authority | 12 U.S. Code §1430 n.d. |
| Peak Outstanding | $1.01 trillion |
| Participants | Member financial institutions (at least 10% of asset portfolio invested in mortgage-related assets) |
| Rate | Non-auction, including fixed rate, variable rate, fixed rate amortizing, variable to fixed rate convertible open-line, set by FHLBanks |
| Collateral | Mortgage-backed securities and related assets, US Treasury and federal agency securities, eligible community development loans |
| Loan Duration | One-day to 30-year maturities |
| Notable Features | Maturity transformation during early stages of GFC; liquidity before broad-based Fed interventions |
| Outcomes | Significant liquidity provided to member institutions |

residential housing or community development, there is evidence that some borrowers used FHLBank advances to fund all types of commercial bank assets (12 U.S. Code §1430 n.d., sec. (a)(2)(A); Frame, Hancock, and Passmore 2012, 3).

**Figure 1: The 12 Regional FHLBanks**




*Source: Muckian 2014.*

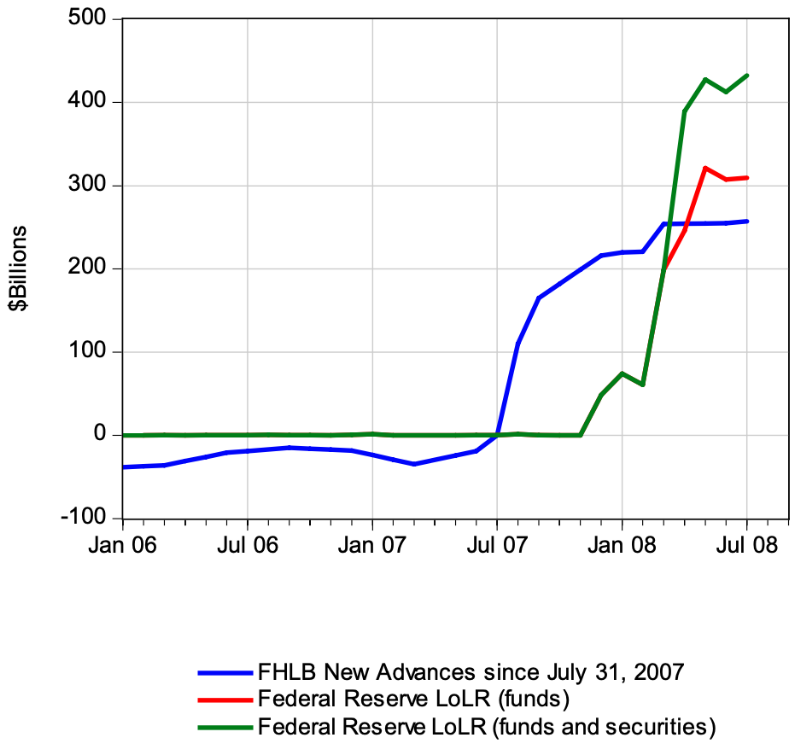
### Summary Evaluation

FHLBanks served as "lenders of next-to-last resort" until the creation of additional Fed facilities in March 2008 (Ashcraft, Bech, and Frame 2008, 4). Advances grew by approximately $360 billion between year-end 2006 and mid-2008 (Narajabad and Gissler 2017a). Funding costs "declined relative to other benchmarks like LIBOR and AA-rated asset-backed commercial paper" (Ashcraft, Bech, and Frame 2008, 11).

Crucially, the FHLBanks provided liquidity before the Fed introduced seven liquidity facilities to deal with the GFC (Ashcraft, Bech, and Frame 2008, 4). Through March 2008, the FHLBank was the largest source of crisis-related liquidity to the financial system (Ashcraft, Bech, and Frame 2008, 4). See Figure 2.

Moreover, there is empirical evidence that FHLBank advances served as general sources of liquidity, not specialized lending for community investment or residential building (Ashcraft, Bech, and Frame 2008, 9). FHLB commercial bank members used advances as a fungible lending source, relying on advance borrowing when demand for loans increased, regardless of the loan type (Ashcraft, Bech, and Frame 2008, 28). These findings indicate FHLBanks provided broad support to the financial system (Ashcraft, Bech, and Frame 2008, 4).

**Figure 2: Liquidity Provided by the Federal Reserve and Federal Home Loan Bank System**




*Source: Ashcraft, Bech, and Frame 2008, 41.*

While advance lending increased significantly during the GFC, FHLBanks suffered no serious losses, which has been attributed to "conservative underwriting standards, strong credit monitoring policies, and the collateralization of all loans (advances) to members" (FHLB Office of Finance n.d.).

However, the GFC had a significant impact on the FHLBank of Seattle, which was merged with the FHLBank of Des Moines in 2015 (Simone 2015, 35). FHLB Seattle invested heavily in private-label mortgage-backed securities (MBS) in the lead-up to the crisis; by March 2008, nearly 10% of its assets were in private-label MBS. The FHLBank was further affected by the sale of Washington Mutual, its largest customer, to JP Morgan in 2008 (Simone 2015, 35).

| Context: United States 2007–2008 | |
|---|---|
| **GDP** | $14,681.5 billion in 2007<br>$14,559.5 billion in 2008 |
| **GDP per capita** | $47,976 in 2007<br>$48,383 in 2008 |
| **Sovereign credit rating (5-year senior debt)** | As of Q4, 2007:<br>Fitch: AAA<br>Moody's: Aaa<br>S&P: AAA<br>As of Q4, 2008:<br>Fitch: AAA<br>Moody's: Aaa<br>S&P: AAA |
| **Size of banking system** | $9,231.7 billion in total assets in 2007<br>$9,938.3 billion in total assets in 2008 |
| **Size of banking system as a percentage of GDP** | 62.9% in 2007<br>68.3% in 2008 |
| **Size of banking system as a percentage of financial system** | Banking system assets equal to 29.0% of financial system in 2007<br>Banking system assets equal to 30.5% of financial system in 2008 |
| **Five-bank concentration of banking system** | 43.9% of total banking assets in 2007<br>44.9% of total banking assets in 2008 |
| **Foreign involvement in banking system** | 22% of total banking assets in 2007<br>18% of total banking assets in 2008 |
| **Government ownership of banking system** | 0% of banks owned by the state in 2008 |
| **Existence of deposit insurance** | 100% insurance on deposits up to $100,000 for 2007<br>100% insurance on deposits up to $250,000 for 2008 |
| *Sources: Bloomberg; World Bank Global Financial Development Database; World Bank Deposit Insurance Dataset.* | |

## Key Design Decisions

1. **Purpose: The FHLB System provided liquidity to member institutions, primarily through the issuance of "advances."**

Throughout the 20th century, the FHLBanks acted as general providers of liquidity to their member financial institutions to finance housing and community investment consistent with their mission. However, member financial institutions heavily relied on the FHLBanks in 2007 as severe market stress restricted other wholesale funding options (Narajabad and Gissler 2017c). The FHLBanks provided liquidity to member financial institutions specialized in the housing market through a variety of debt instruments and asset purchases (Flannery and Frame 2006, 38). Primarily, the FHLBanks provided (over)-collateralized loans termed "advances" with mortgage-related assets or treasury or agency securities underwriting the loans (Flannery and Frame 2006, 39). Secondarily, the FHLB held some mortgages and other securities on its balance sheet, including: member assets, stand-by letters of credit, intermediary derivative contracts, and debt or equity investments—typically mortgages benefitting households below 80% of median area income (Flannery and Frame 2006, 38; Frame, Hancock, and Passmore 2012, 662).

As the FHLB System had GSE status, it was able to offer favorable terms on advances, given an "implicit" guarantee by the federal government (Frame, Hancock, and Passmore 2012, 661).[3] This implicit guarantee allowed the FHLBanks to pass on cheap funding costs to member institutions through cheap advance lending rates. All advances were required by law to be used only for financing residential housing (Frame, Hancock, and Passmore 2012, 664; 12 U.S. Code §1430 n.d., sec. (a)(2)(A)).

2. **Legal Authority: The FHLB System was created by the Federal Home Loan Bank Act in 1932. The FHLB System was altered by legislation in 1989.**

Until 1989, member institutions were generally thrifts and a few insurance companies[4] (Flannery and Frame 2006, 33). In 1989, the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) opened the FHLBanks to all depository institutions that invested more than 10% of their portfolio in mortgage-related assets (Flannery and Frame 2006, 33). As a result, the number of member institutions increased from 3,200 member institutions in 1989 to over 8,000 in 2005 (Flannery and Frame 2006, 33).

12 U.S. Code §1430 regulated FHLBank advances to members and specified eligible collateral, membership requirements, oversight, and reporting (12 U.S. Code §1430 n.d.).

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[3] This implicit guarantee was reaffirmed in September 2008 when the Treasury created a Government Sponsored Enterprise Credit Facility that Fannie Mae, Freddie Mac, and the FHLBanks could tap for short-term funding. The facility acted as a backstop and was never used. Fannie Mae and Freddie Mac were put into conservatorship on September 6, 2008 (Frame et al. 2015, 39).

[4] The FHLB System allowed insurance companies to become members because of historical involvement of insurance companies in the mortgage market: from 1930 to 1970, insurance companies owned between 5% and 10% of nonfarm residential mortgage debt (Snowden 2010, 5). This share shrunk to approximately 1% by 1980 and remained there throughout the crisis. See Snowden, 2010 for more.

The Housing and Economic Recovery Act (HERA) of 2008 amended this section of the code, creating the Federal Housing Finance Agency (FHFA) to regulate the FHLBanks and changing prudential regulation and risk-management (Housing and Economic Recovery Act 2008).

3. **Part of a Package: The FHLBank advance lending was not part of a package of announced interventions, although the surge in FHLBank usage that began in mid-2007 coincided with the Fed's early crisis-fighting measures.**

The FHLBank advance lending was not part of a package of announced interventions, as the lending program had been in place for years prior to the GFC. The Fed took a few early measures to address the crisis. On August 10, 2007, the Fed released a press release encouraging depository institutions to borrow from the discount window, and on August 17, 2007, the Fed lowered the discount window rate by 50 basis points (Federal Reserve Bank of New York 2010). On December 12, 2007, the Fed opened the Term Auction Facility (Federal Reserve Bank of New York 2010).

4. **Management: In the lead-up to the GFC, the FHLB System was regulated by the Federal Housing Finance Board. In 2008 the FHFA was created to replace the Federal Housing Finance Board.**

From 1932 to 1989, the Federal Home Loan Bank Board (FHLBB) regulated the FHLBanks and its finance entity (Simone 2015, 6). In 1989, the FHLBB was dissolved by FIRREA in response to the thrift crisis (Simone 2015, 6). This act also created the Federal Housing Finance Board (FHFB), which regulated the banks from 1989 until 2008 (Simone 2015, 6). The FHFB responded to long-standing criticisms of the FHLBB, and generally, its failure to ensure "safety and soundness of FHLBanks" and its independence as a regulator (Government Accountability Office 1998, 2). In 2008, HERA created the FHFA to regulate the FHLBanks (Simone 2015, 6).

Prior to 2008, the FHFB conducted annual on-site examinations of the FHLBanks and continually monitored that the FHLBanks satisfied capitalization requirements (McCool 2005). After HERA, the FHFA was required to submit an annual report to Congress detailing FHLBank performance and listing board of director compensation[5] (Housing and Economic Recovery Act 2008). The FHFA was also required by HERA to submit an annual report on the types of collateral securing advances in FHLBanks (Housing and Economic Recovery Act 2008).

The changes to the FHLBank system changed the membership of the system considerably. First, the FHLBank membership shifted away from thrift and toward community and large commercial banks. Second, total outstanding advances shifted heavily toward large commercial banks (Stojanovic, Vaughan, and Yeager 2008, 681). See Figure 3.

[5] Prior to HERA, the FHLB Board was required to submit reports to Congress; annual reports can be found going back to 1932 (FHLB Act 1932, Sec. 20).

**Figure 3: Membership and Advances, by Member Type**

| | 1992 | 2003 | Average annual percent change |
|---|---|---|---|
| *Membership by type of financial institution* | | | |
| Thrifts | 2291 | 1344 | −4.8% |
| Large Commercial Banks | 116 | 648 | 15.6% |
| Community Banks | 1235 | 5260 | 13.2% |
| Total System Members | 3624 | 8101 | 7.3% |
| *Advances outstanding by member type ($Mil)* | | | |
| Thrifts | $72,331 | $192,500 | 8.9% |
| Large Commercial Banks | $4,295 | $196,890 | 34.8% |
| Community Banks | $1,573 | $38,015 | 29.0% |
| Total System Advances | $78,780 | $501,600 | 16.8% |

*Source: Stojanovic, Vaughan, and Yeager 2008, 681.*

Given that large commercial banks dominated advance borrowing, FHLBank advances came to fund "virtually any type of asset" not only residential- or mortgage-related assets (Frame, Hancock, and Passmore 2012, 665).

**5. Administration: FHLBanks were managed by boards of directors, containing a mix of member-affiliated directors and appointed or independent directors.**

FHLBanks were managed by boards of directors elected by member institutions, with at least 14 members. Prior to 2008, eight of the board members were elected by member institutions, and the FHFB appointed six members. When HERA passed in 2008, the FHFB was dissolved and a new process for board member selection was put in place. Board of directors were required to be a majority "member directors"—officers or directors of member institutions—while at least two-fifths of the board were "independent directors"—who were not affiliated with a member institution and satisfied a "public interest" requirement (Housing and Economic Recovery Act 2008, sec. 1202).

Prior to 2008, the Office of Finance, which raises funds in capital markets on behalf of all FHLBanks, had a board of directors consisting of three members each serving three-year terms (McCool 2005). The FHFB appointed the chair and selected the two other board members from the group of serving FHLBank presidents (McCool 2005). After HERA, the FHFA amended the design of the Office of Finance, expanding the board of directors to 17, including all 12 FHLBank presidents, as well as five independent directors (Federal Housing Finance Agency 2010).[6]

### 6. Eligible Participants: Eligible counterparties were member financial institutions.

Eligible counterparties were member financial institutions. Member financial institutions belonged to the relevant FHLBank for their distinct geographical area (Flannery and Frame 2006, 38). Before FIRREA, member institutions were restricted to thrifts and insurance companies that specialized in mortgage-related assets (Flannery and Frame 2006, 33). After FIRREA, any depository institution with greater than 10% of its total assets invested in mortgage-related assets was eligible to become a member institution, including banks and credit unions for the first time (Flannery and Frame 2006, 33). Membership increased significantly in response to the act: in 1989, the system included only 3,200 member institutions, while in 2005, it included more than 8,000 (Flannery and Frame 2006, 33).

To become a member institution, an eligible financial institution had to purchase stock in the FLHBank that had jurisdiction over its geographic location (Flannery and Frame 2006, 42). Minimum stock subscriptions varied between FHLBanks (FDIC, n.d., 29). However, the Financial Modernization Act of 1999 required that each FHLBank set minimal stock levels for both Class A stock—redeemable within six months' notice from the FHLBank—and Class B stock—redeemable on five years' notice (Flannery and Frame 2006, 42). In general, necessary stock ownership varied between 2% and 6% of the advance (Ashcraft, Bech, and Frame 2008, 11).

By year-end 2006 the FHLBanks had a combined 8,125 members (Federal Home Loan Banks 2007, 113). During the next few years of the GFC, membership stayed fairly constant (see Figure 4). Between 1993 and 2007, only 116 FHLBank members withdrew for reasons other than merger or acquisition (Federal Home Loan Banks 2008, 113).

**Figure 4: FHLBank Membership, 2005–2009**

| Year | Total FHLBank Membership |
|---|---|
| 2005 | 8,149 |
| 2006 | 8,125 |
| 2007 | 8,075 |
| 2008 | 8,152 |
| 2009 | 8,057 |

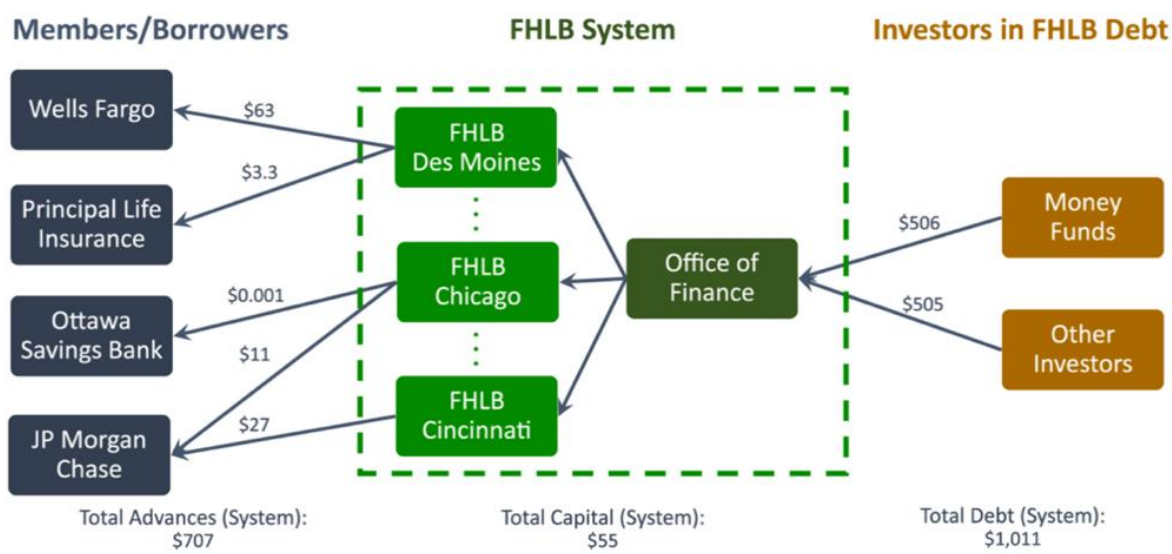
*Source: Federal Home Loan Banks 2007, 113; 2008, 113; 2009, 31; 2010, 33–34.*

[6] "Independent directors," for the purposes of the Office of Finance board of directors, were individuals without a material interest in member institutions of the FHLBank system, and who had not served as an officer or director of a member institution in the prior three years.

**7. Funding Source: The FHLBanks did not allocate a predetermined amount of funds to finance advances. Advance lending increased from $640 billion in 2007 to $1.01 trillion in 2008.**

There was no predetermined amount of funds allocated to finance advances. FHLBanks' operations were primarily funded through the sale of consolidated obligations—bonds and discount notes—to the public. These securities are joint obligations of all 12 FHLBanks, administered by the FHLB's central Office of Finance (Federal Home Loan Banks 2009, 4). At the end of 2009, debt (mostly issued as consolidated obligations) funded approximately 96% of the FHLBanks' consolidated asset portfolio; mandatory equity capital from member bank stock subscriptions represented the other 4% (Frame, Hancock, and Passmore 2012, 664). See Figure 5.

**Figure 5: FHLB Funds Diagram**




*Source: Narajabad and Gissler 2017b.*

In the first phase of the GFC, before broad-based Fed liquidity support, demand for FHLB consolidated debt obligations increased concurrently with the increase in advance lending, representing investor flight-to-safety (Office of the Comptroller of the Currency 2014).

**8. Program Size: FHLB advances increased during the GFC from $640 billion in June 2007 to a high of $1.0 trillion in September 2008.**

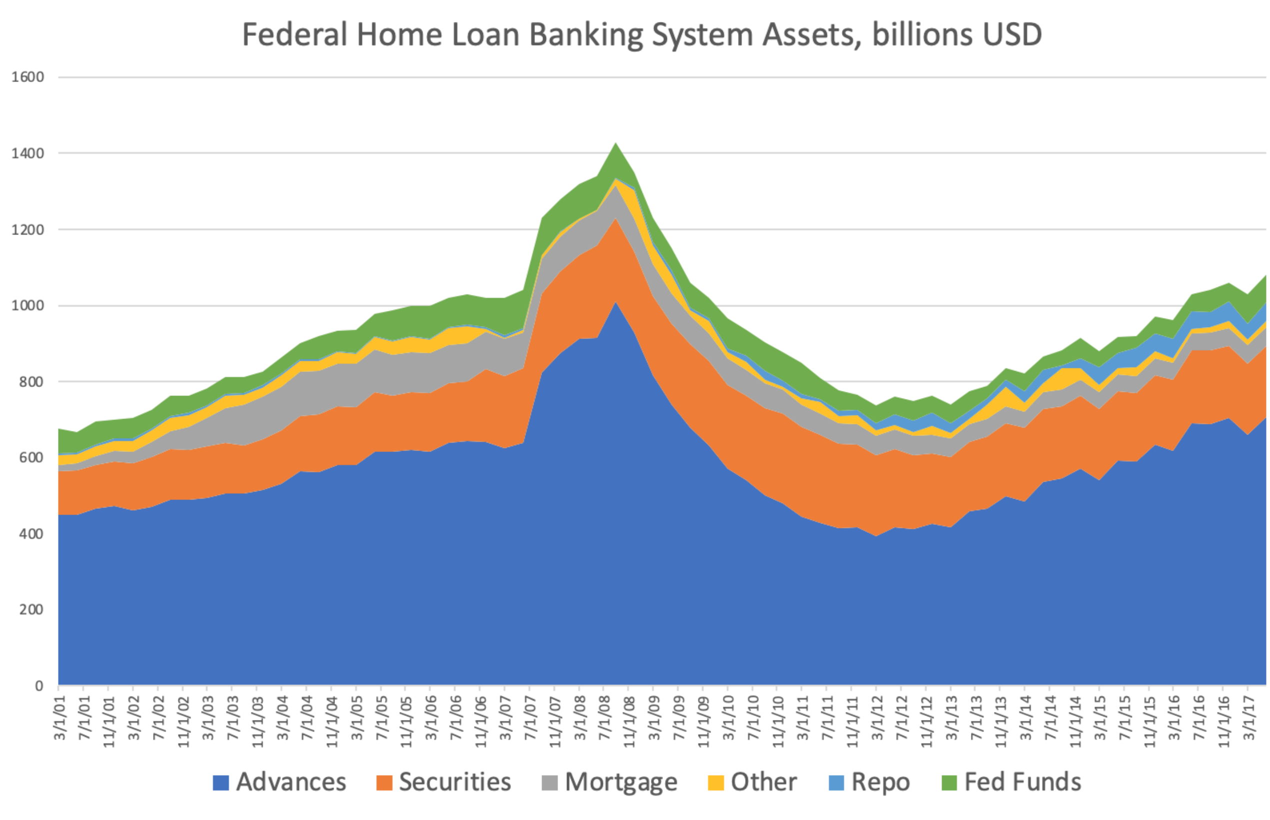
During the GFC, FHLB advances increased from $640 billion in June 2007 to a high of $1.0 trillion in September 2008 (Narajabad and Gissler 2017a). At peak, advances represented 70.6% of FLHBank assets, up from 63% at the end of 2006 (Narajabad and Gissler 2017a); Federal Home Loan Banks 2007). See Figure 6.

More than half of the increase in advance lending in the second half of 2007 was attributable to 10 FHLBank members (Getter 2020). Of the $235 billion increase in advance lending during the second half of 2007, the 10 most active members accounted for almost $150 billion of the total (Ashcraft, Bech, and Frame 2008, 11). The three most active members were two large thrifts, Washington Mutual and Countrywide, and one of the largest commercial banks, Bank of America (Ashcraft, Bech, and Frame 2008, 11).

The growth in FHLBank advance lending coincided with a drop in private investor appetite for mortgage-backed securities and related assets in response to the GFC (Ashcraft, Bech, and Frame 2008, 4). Investors in FHLBank debt prioritized the implicit government guarantee of their debt (Ashcraft, Bech, and Frame 2008, 4). See Figure 7.

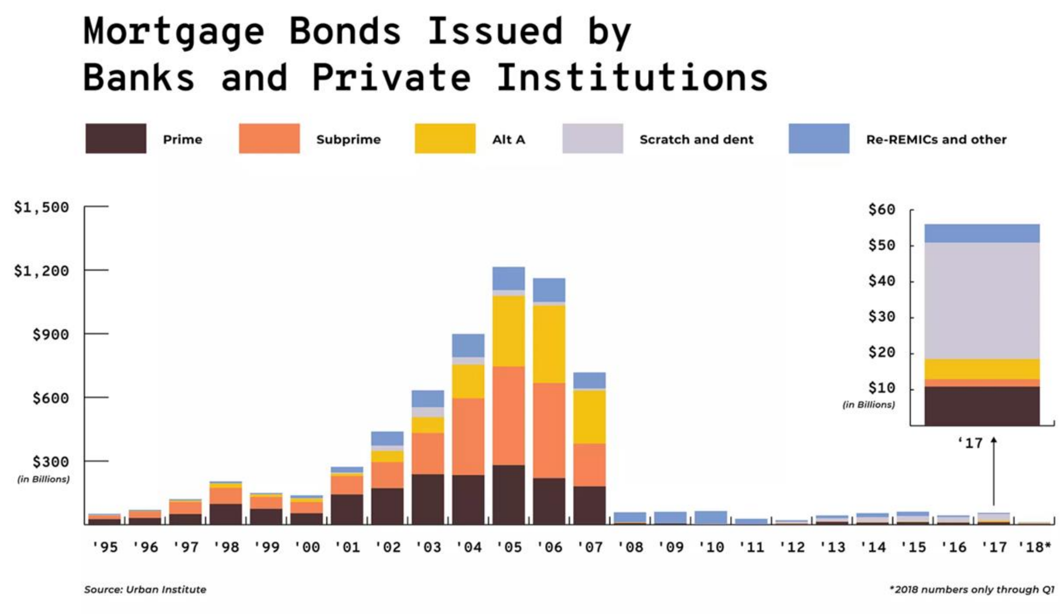
FHLBank member institutions made broad use of FHLBank advances as funding options elsewhere dried up. While spreads on bank debt spiked in 2007, FHLBank advance rates remained stable, at least through the early stage of the crisis (Ashcraft, Bech, and Frame 2008, 40). See Figure 8.

**Figure 6: FHLB Combined Assets**



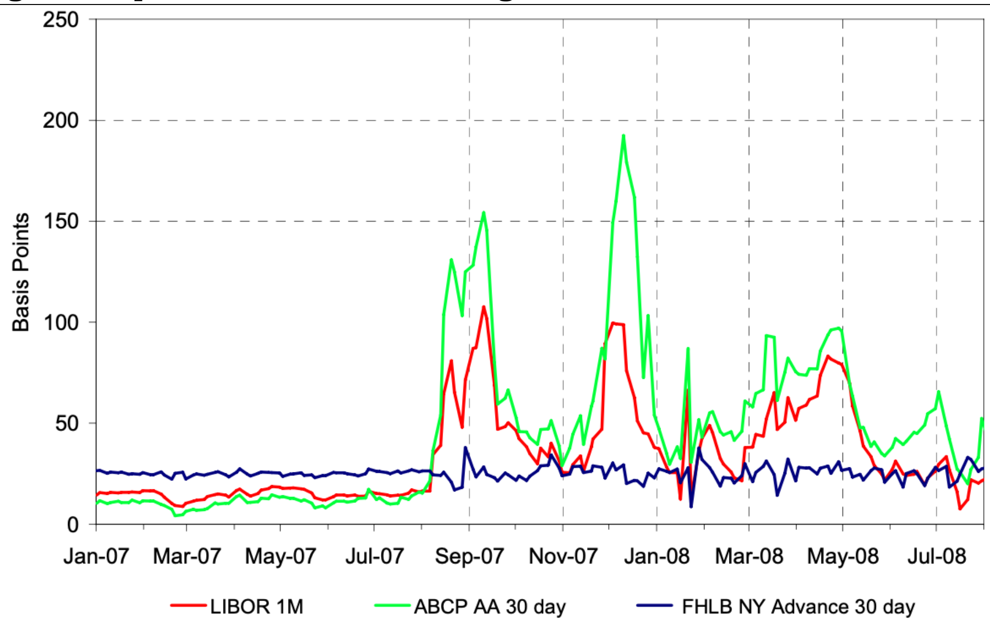

*Source: Narajabad and Gissler 2017b.*

**Figure 7: Mortgage Bond Issuance, 1995–2018, in $ billions**




*Source: Andrews 2018.*

**Figure 8: Spread of Selected Funding Rates to Four-Week FHLB Discount Note**




*Source: Ashcraft, Bech, and Frame 2008.*

9. **Individual Participation Limits: The director of the FHLB Board was authorized to set limits on individual borrowing.**

The Housing and Economic Recovery Act of 2008 amended Section 9(D) of 12 U.S.C §1430 to authorize the director of the FHFA to set limits on advance lending to individual member institutions (12 U.S. Code §1430 n.d., sec. 9(D)). Prior to HERA, the FHFB had the power to regulate FHLBanks engaged in "unsafe or unsound practice[s]" (Gramm-Leach-Biley Act 1999, sec. 606).

10. **Rate Charged: Each FHLBank had its own standing program of advances available to member financial institutions. Interest rates for advances varied by maturity, type, and FHLBank issuer.**

Rates varied with type of advance and FHLBank. Rates were updated regularly by each FHLBank (Federal Home Loan Banks 2007, 8). Standard advances included:

- Fixed-rate advances—maturities ranging from one day to 30 years, optionally convertible or puttable;
- Variable-rate advances—maturities ranging from less than 30 days to 10 years, periodically reset interest rate with fixed spread to LIBOR;
- Fixed-rate amortizing advances—final maturities from one year to 30 years, principal repaid over amortizing period;
- Variable to fixed-rate convertible advances—maturities range from two years to 30 years, defined lockout variable period;
- Open-line advances—one day maturity to meet daily financing needs, interest rates set daily.

11. **Eligible Collateral: Eligible collateral for FHLB advances were in general mortgage-related assets, as well as government-guaranteed securities. Haircuts were based on liquidity and credit risk assessments.**

Eligible collateral for FHLB advances were in general mortgage-related assets (Flannery and Frame 2006, 39). Specifically, eligible assets were:

- Fully disbursed, whole first mortgages on residential property not more than 90 days delinquent, or securities representing a whole interest in such mortgages;
- Securities issued, insured, or guaranteed by the government or a federal agency;
- Cash or deposits;
- Other real estate–related collateral with readily ascertainable value;

- Secured loans for community development activities, small businesses, or agricultural businesses in the case of a community financial institution (12 U.S. Code §1430 n.d., sec. (a)(3)).

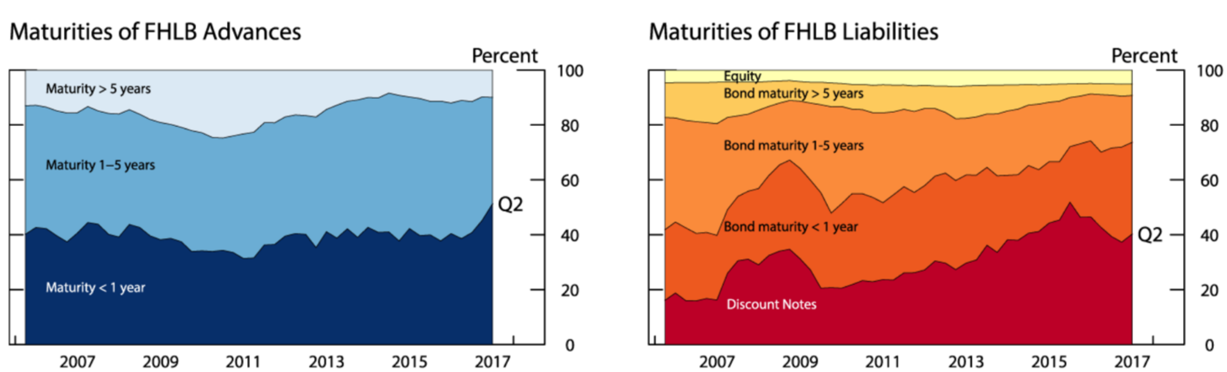
The majority of advance collateral was mortgage-backed, Treasury, and federal agency securities (Flannery and Frame 2006, 39).

To receive an advance, a qualifying financial institution had to first pledge high-quality collateral to the FHLBank (12 U.S. Code §1430 n.d., sec. (e)). Haircuts on collateral were calculated using liquidity and credit risk estimates (FDIC n.d., 29). Moreover, a qualifying financial institution would also have to purchase and maintain stock in its FHLBank (FDIC n.d., 29). Minimum stock investments varied between each FHLBank (FDIC n.d., 29).

### 12. Loan Duration: FHLBanks offered a variety of types of advances, with a range of maturities.

FHLBanks offered a variety of types of advances, with a range of maturities, fixed or variable rates of interest, and sometimes embedded options (Flannery and Frame 2006, 39). Generally, and especially during the GFC, FHLBanks engaged in maturity transformation activities for member financial institutions, as is shown in the maturities of FHLB advances compared to the maturities of FHLB liabilities (Narajabad and Gissler 2017c). See Figure 9.

**Figure 9: Maturity Transformation**




*Source: Narajabad and Gissler 2017c.*

### 13. Other Conditions: FHLB advances gave the FHLB priority over all other depositors and almost all creditors in the case of default.

FHLB advances were subject to a statutory "super-lien": the FHLB had priority over all other depositors and almost all creditors in the event of member default (Narajabad and Gissler 2017b; Frame, Hancock, and Passmore 2012, 664). This priority extended over the Federal Deposit Insurance Corporation (FDIC), all depositors, unsecured and secured creditors, and the claims of any receiver, conservator, or trustee (Narajabad and Gissler 2017b).

Each FHLBank could also require additional or substitute collateral in the case of default to protect its security interest in a loan (FDIC n.d., 33).

FHLBank advances both predated and postdated the GFC. FHLBanks have issued advances as their primary form of lending since 1932, sustaining zero losses throughout (Federal Home Loan Banks 2009, 6; Flannery and Frame 2006, 52). This record is attributed to "conservative underwriting standards, strong credit monitoring policies, and the collateralization of all loans (advances) to members" as well as the statutory super-lien (FHLB Office of Finance n.d.). As collateralized loans, advances are repaid even before insured depositors in the event of a bank failure.

**14. Impact on Monetary Policy Transmission: The FHLBanks were independent from the central bank, and monetary policy effects weren't relevant to the system's advance lending practices.**

As the FHLBanks were independent from the Fed, their lending activities did not have an impact on monetary policy. FHLBank advance lending was funded by debt obligations, and therefore did not have an impact on the money supply.

**15. Other Options: No other options were considered, as the FHLBanks were not created in reaction to the GFC.**

The FHLBanks were not created in response to the GFC—advance lending both pre- and postdated the GFC—and so other options were not considered in the implementation of the program.

**16. Similar Programs in Other Countries: There do not appear to be any similar operations in other countries.**

Research did not reveal similar program in other countries outside the United States. This is partly due to the peculiar history of mortgage lending in the United States, which grew out of the response to the Great Depression. For example, mortgage lending in Europe during the GFC was not backstopped by any national government sponsored enterprise, partly because of European Union law (Articles 87 and 88 of the EC treaty) (Coles and Hardt 2010).

**17. Communication: Each FHLBank communicated with member institutions and investors.**

The FHLBanks communicated with member institutions and investors; many operated "investor relations" websites to update advance rates and communicate information (FHLB Des Moines 2021).

On September 7, 2008, the day after the placement of Fannie Mae and Freddie Mac into government conservatorship, FHFA director James Lockhart announced the take-over and emphasized that a secured liquidity facility would be created for Fannie Mae, Freddie Mac and the FHLBanks. He went on to say:

> The Federal Home Loan Banks have performed remarkably well over the last year as they have a different business model than Fannie Mae and Freddie Mac and a different capital structure that grows as their lending activity grows . . . Therefore, it is very unlikely that they will use the facility (Federal Housing Finance Agency 2008).

Research did not reveal substantial communication from the FHLBank system regarding the system's role as a crisis responder during the crisis, including in the system's annual reports.

**18. Disclosure: Amounts and recipients were reported through regular SEC filings, quarterly, annual, and periodic financial reports, and combined financial reports issued by the FHLB Office of Finance.**

Amounts and recipients were reported through regular SEC filings, quarterly, annual and periodic financial reports, and combined financial reports issued by the FHLB Office of Finance (FHLB Des Moines 2021).

**19. Stigma Strategy: The FHLB did not mention stigma in its reporting.**

Though the FHLBanks reported recipients and published advance rates, the Banks did not mention stigma strategy in consolidated reports. FHLBank advance rates were lower than market rates throughout the crisis; this might have mitigated the stigma affect associated with borrowing (Ashcraft, Bech, and Frame 2008, 40).

**20. Exit Strategy: There was no predefined exit strategy for FHLBank advance operations; the FHLBanks remain as a source of liquidity for member institutions.**

There was no predefined exit strategy for FHLBank advance operations; the FHLBanks remain as a source of liquidity for member institutions.

# References and Key Program Documents

Documents cited in the text are introduced with a parenthetical author-date citation. Documents that are relevant to this case but have not been cited in text do not include this parenthetical reference.


## Implementation Documents

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