Two is Better Than One:
How the Federal Home Loan Bank Serves a Unique Role in The U.S. Banking System

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Executive Summary

In 2023, the Federal Reserve’s policy of monetary contraction was threatened by a liquidity crisis as long-term bank investments lost value and depositors began to withdraw. To counteract this, liquidity extension began by two means – one from the Federal Reserve’s Discount Window (DW) and the second from the government-sponsored Federal Home Loan Banks (FHLBs). Were these two actions duplicative or did they serve different purposes?

Utilizing a private Government-Sponsored Enterprise (GSE) for liquidity instead of the Federal Reserve has different implications for the money supply. Without the FHLBs, the Discount Window would be the primary emergency lender, which would theoretically lead to an increase in money supply and counteract monetary tightening efforts by the Federal Reserve. Those actions are characterized as accommodative monetary policy and would likely stimulate inflation.

Looking back at liquidity extension by the Federal Reserve and the FHLB system, a relationship can be observed between their effects on inflation. Though not extensive, this paper’s theoretical discussion and analysis provide support to the idea that the FHLB System does not have a significant positive effect on the money supply while the Fed does. Based on our understanding, we conclude that the liquidity actions by the Federal Reserve and the FHLBs have distinctly different purposes and serve as a backstop to the stability of the U.S. banking system.

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**Introduction**

When the financial sector is undergoing a crisis and other options have been exhausted, the Federal Reserve is the “lender of last resort.” What is less understood is that before institutions turn to the Federal Reserve for loans, they usually borrow from what has been dubbed the “next-to-last resort” lender, the FHLBs. However, the FHLBs do not exist as emergency liquidity providers, but instead as routine institutional lenders, with terms on loans as low as overnight to as long as 30 years. Even the moniker “next-to-last resort lender” is not used by any FHLB, as the role was never an official designation but simply an observed relationship. Nonetheless, in a crisis, loans from FHLBs increase to meet liquidity demands. It is this understudied relation that is the subject of this paper.

The FHLB System consists of 11 wholesale lenders that have existed since the Great Depression and are intended to do for thrifts (savings and loan associations) what the Federal Reserve’s DW does for commercial banks. Though their customer base has expanded, they still serve as a liquidity provider as intended. However, it is not structurally the same as the DW, and examining these differences can illustrate why the FHLBs have a unique and vital role in maintaining financial stability in the U.S. banking system.

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The following will examine the theoretical case for the Federal Reserve and FHLB System's relationship to money supply and inflation, and then evaluate this relationship through supporting analysis.

**History of the FHLB**

The FHLB system was established after Congress passed the Federal Home Loan Bank Act of 1932. The system served as a counterpart to the Federal Reserve DW, with each servicing different financial institutions. In its inception, the FHLBs were for savings and loans, also called *thrifts*, and the DW was established to focus on banks. Regarding the creation of the FHLB System, Herbert Hoover stated:

*Its purpose is to establish a series of discount banks for home mortgages, performing a function for homeowners somewhat similar to that performed in the commercial field by the Federal Reserve banks through their discount facilities.*

In effect, the FHLBs were established to provide financial stability for the housing market even in times of financial struggle. Homeownership was seen then, and it still is today, as a marker of financial independence. Both the FHLBs and the Fed are wholesale lenders, meaning their clientele consists of other institutional lenders instead of individual consumers. FHLB Loans would originally go primarily to thrifts (savings and loans), and the main function of said loans would be to ensure thrifts maintain adequate liquidity.

In this sense, the FHLBs’ primary function was to extend advances and loans secured by collateral that would be paid back with interest after maturing. These advances continue to be the FHLBs’ primary economic activity, with FHLBs receiving most of their profit from interest on these loans.

Initially, the FHLB System was regulated by its board, the Federal Home Loan Bank Board (FHLBB). After the savings and loans crisis of the 1980s and 1990s, the FHLBB was abolished, and the Federal Housing Finance Board (FHFB) replaced it with the passage of the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) of 1989. Unlike the FHLBB, the FHFB would operate as a separate entity and oversee the actions of the FHLB, removing any potential incentives to set favorable policies that maximize profits. Furthermore, FIRREA expanded eligible membership in the FHLB System to commercial banks since, by this point, mortgage lending was no longer limited to thrifts.

Finally, after the 2008 financial crisis, the FHFB was abolished and replaced with the Federal Housing Finance Agency (FHFA), which operates today. Additionally, the Seattle FHLB was merged with the Des Moines FHLB to resolve longstanding

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oversight complaints. Thus, reducing the number of FHLBs from 12 to 11.

**Definition and Structure of the FHLB**

Today, the FHLBs consist of 11 regional wholesale Government-Sponsored Entity (GSE) co-ops providing over-collateralized loans to financial institutions. To better understand the FHLB System, it is helpful to carefully parse this definition.

These are 11 separate regional banks, each responsible for setting their interest rates and capital stock requirements. Rates determine the interest on loans, and capital stock requirements determine the amount of stock its members must purchase with each loan. The value of the rates is determined by surcharging the rates on debt securities, called consolidated obligations, which investors buy to fund liquidity provision. The capital stock requirements are a part of the FHLB System risk management strategy, which helps it shore up investments against unforeseen calamities.

The term “wholesaler” refers to the fact that these FHLBs are entities that sell to other financial entities but not directly to consumers. It is not a replacement for a mortgage lender but provides support for retail mortgage lenders. As a wholesaler, the FHLBs protect the industry from short-term liquidity crunches. Thus, supporting the free market mortgage industry without replacing it.

GSEs are privately owned but created by the government to provide a role much like a public utility. In this way, the public good that the FHLBs provide is twofold. For one, the FHLBs devote at least ten percent of its profits to affordable housing programs meant to expand homeownership as intended, thereby benefiting prospective homeowners. Secondly, the FHLBs are an invaluable lender essential to the financial stability of the banking system.

As for the term co-op or cooperative, the FHLBs are owned and operated by its members. In this case, the members are financial institutions like commercial banks, thrifts, insurance companies, and credit unions. These members buy fixed non-tradeable shares in their regional FHLB. Stock requirements then determine voting rights according to the bylaws of each one.

The loans the FHLBs provide are called advances, which are over-collateralized secured loans paid back with interest after maturity. Over-collateralization allows FHLBs

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5 When referring to the individual banks, the word “Bank” is spelled out. For example, “11 regional FHLBanks make up the FHLB system.”


to issue credit quickly and without the need for extensive underwriting, like in unsecured lending operations. Acceptable collateral consists of US government and government agency securities, residential mortgage loans and their securitized counterparts, fiat, deposits in the FHLBs, and various other real estate assets.⁹

**General Benefits**

Because FHLBs are GSEs they have certain benefits over other private sector firms, which helps explain why their debt is so attractive and which allows them to support the entire financial sector. These benefits include direct financial support and priority status in case of borrower insolvency. All government benefits are predicated on the notion that the GSE provides a public service that outweighs the public expense. As noted earlier, one of its notable public services is its support of affordable housing programs.

The FHLBs have some state-provided advantages. Among these advantages is their exemption from both federal tax obligations. It was estimated that in 2022 the FHLB received over $800 million in revenue from avoiding these financial obligations.¹⁰ These benefits are not offset by the FHLBs’ affordable housing program, which has been estimated to have contributed $355 million in 2022 to low-income housing efforts. This discrepancy has led some to call for the program to expand beyond its required 10 percent of net profits to affordable housing.¹¹ Such assertions don’t evaluate the FHLBs’ role as economic stabilizers, which is of major importance, but its value is hard to estimate.

Another benefit is the FHLBs’ implied guarantee of its debts by the US government. As in implicit instead of explicit guarantee, the US government has never claimed an obligation over any debt held by an FHLB. Instead, it is the perception of capital markets that this guarantee exists.

Helping to provide another layer of security is the FHLB’s statutory super-lien ensures an orderly process if a bank borrowing from a FHLB becomes insolvent. Preceding this is the uniform commercial code, giving the FHLB first priority as a secured lender. The Federal Deposit Insurance Fund and National Credit Union Share Insurance Fund, which handle bank and credit union insolvencies respectively, then have the option to settle debts with the FHLB by liquidating collateral, going through the Deposit Insurance Fund, or having an acquiring bank assume them.

From a public interest perspective, the FHLBs’ over-collateralization on loans, strong risk-based capital requirements, super-lien, and implicit guarantee make investing in an FHLB incredibly safe and attractive. For this reason, FHLBs can fund massive liquidity

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¹¹ Ibid.
extensions without creating “new money” as the Discount Window does. Though the FHLB System is government-sponsored, its advantages help it function as a trusted stabilizing institution for liquidity in the market.

**Externalities**

The externalities from the provision of liquidity give a theoretical explanation for why FHLBs can provide advances without affecting the money supply to the extent the Fed does. Understanding the anatomy of a liquidity crisis and how each institution responds, how the response affects the money supply, and how the money supply affects inflation, helps frame the final analysis and support the hypothesis.

**A. Liquidity crisis**

A liquidity crisis is exactly as it sounds, a potentially disastrous situation resulting from a lack of short-term financial assets to pay obligations. A commercial bank takes in customer and corporate deposits to hold safely and generate interest. To pay for their service, generate customer interest, and make a profit, they lend out those deposits to secure other assets that generate higher interest than is paid to depositors. Investments, such as US Treasury bonds, take time to generate returns and reach maturity. Before fully maturing, a market shock could cause depositors to pull their money out of the bank. Selling these assets prematurely or right after a decline in asset value could put the bank at a loss. A negative balance means the bank would not have enough money to pay back depositors, thus making it insolvent. To survive a sudden withdrawal of deposits, a bank needs a quick injection of short-term liquid capital, like US dollars, to pay out depositors without realizing investment losses.

Both the Federal Reserve’s DW and FHLBs are institutional solutions to deficits in short-term liquidity. Their loans are designed to be extended quickly (overnight) so that banks can backstop their reserve in case of a sudden withdrawal of deposits. The mechanisms each liquidity provider employs, from over-collateralization to maintaining accurate information on members, exist so that loans can be evaluated quickly and deployed. Failure to do so could result in a bank becoming insolvent and a conservatorship installed to oversee the forfeiture of their assets to pay back depositors and investors.

**B. Money supply**

The money supply represents all fiat currency and liquid assets at a particular time. There are multiple layers to what constitutes “fiat currency” and a “liquid asset,” all of which affect how the money supply is measured. These layers are commonly distinguished into two groups, M1 and M2, with three other lesser-used groups, M0, MB, and M3.

M1 is used to denote either cash or highly liquid cash derivatives like savings and checking accounts. What distinguishes this layer from the others is that it represents liquidity in its most basic form, physical or
easily made physical. M2 includes everything in M1 as well as short-term deposits in banks and money market funds. Timed deposits are also included in M2 if they are less than $100,000.

In comparison, the Federal Reserve has the explicit duty of regulating money supply through three methods: changing reserve requirements for banks; open market operations; and setting the discount rate. The discount rate, the topic of this paper, is the rate at which banks pay for short-term loans from the DW. Lowering the discount rate will make short-term loans from the DW more attractive, incentivizing borrowing and the injection of Federal Reserve Credit into bank reserves. This injection represents an increase in the money supply and provides banks the ability to stay solvent during a liquidity crisis and to lend more to their customers. As a result, the more liquid capital financial institutions hold, the more incentive there is to lend and generate a return on that capital.

The reason for this is two-fold, firstly because these short-term loans still require interest payment back to the Fed, and secondly because according to the quantity theory of money (QTM), as more banks borrow from the DW and the money supply continues to rise, so does the likelihood of increased inflation. Both reasons penalize unproductive capital, which would lose value with time and require interest upon repayment. The solution that the Fed is counting on is that banks will lend otherwise unproductive capital to productive causes.

**C. Inflation**

Decreasing the discount rate and increasing the money supply stimulates lending and economic growth during recessions, which is one of the purposes of the Fed. A side effect of this economic stimulation, according to QTM, is inflation. As the amount of money supply increases, assuming a constant amount of monetary exchange (velocity), the value of that money relative to the price of goods goes down (assuming constant value and quantity for goods). The Fisher equation expresses this as money supply multiplied by money velocity equals the average price of goods multiplied by the volume of transactions for goods. In other words, the DW creates “new money” by issuing Federal Reserve credits, which are added to bank reserves and constitute a dollar amount. Essentially, you have too many dollars chasing too few goods.

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Caveats aside, while the Fed DW greatly affects inflation, according to QTM, FHLBs have minimal effect. The reason for this has to do with debt creation. Unlike the Federal Reserve’s DW, FHLBs issues debt securities on the global credit market and thus it lends money already in the money supply. Therefore, FHLB liquidity infusion creates no “new money.”

**Liquidity Structure**

**A. Debt and Liquidity**

To understand why the Fed fundamentally affects money supply differently than FHLBs it is important to know the sources of liquidity. When a financial institution lends out credit, those funds theoretically originate from their reserves. When institutions have to report their balances, having more outstanding obligations than assets (in terms of dollar value) will result in a negative balance. A negative balance could signal to depositors that their funds are not insured and trigger a mass withdrawal which could lead to bankruptcy and insolvency. Thus, a limiting factor to “new money” credit creation is the value of assets in reserves and their liquidity in the event of a sudden run on the bank.  

**B. Federal Reserve Credit**

It may seem that FHLBs are an exact substitute for the Fed DW. However, the anatomy of financial markets makes this impossible, for the same reason it makes FHLBs useful in the early stages of a financial crisis. In an early crisis or a low-level liquidity shortage, having an institution that can provide short-term funds without drastically affecting the money supply is useful. With little change in money supply, the Fed will not need to adjust monetary policy due to potential increases in inflation.

Providing funds through selling debt securities on credit markets has limits, which is why this method works for the “next-to-last resort” but is not a replacement for the last resort – namely, the Federal Reserve. That limit is private investors’ willingness to purchase debt securities, no matter how attractive those investments are. This is an important delineation in understanding how the Federal Reserve and FHLBs have complementary roles and are not exact substitutes. The Federal Reserve can create Federal Reserve Credit, which is essentially “new money,” in the sense that it increases the borrowing bank's reserves which can then be lent out and added to the money supply. Credit from the Fed is not first balanced through investor purchases of debt securities.


These credits represent “new money” because there is not an equal debt obligation taking funds out of the economy. Because of this, the Fed can extend a far higher amount of liquidity without first selling an equal proportion of debt securities to private investors.

C. Global Credit Markets

The provision of quick short-term liquidity, often to banks experiencing some kind of financial crisis, is a risky business model. It’s not easy to convince investors to willingly provide capital to an organization that will lend that capital to financial institutions in a state of crisis. Under most circumstances, such investments would require high returns to offset the risk. These returns (higher interest rates) on debt investments would need to be recovered onto short-term loans, making such loans unattractive to financial institutions in need. It may be surprising then that debt investments in FHLBs are rated AAA and that no FHLB has ever failed to pay its obligations, nor has any needed to be bailed out by the Federal government. The AAA rating for debt securities can be attributed to the FHLB System’s liquidity structure and government benefits.

The life of liquidity in the FHLB System begins with consolidated obligations, and debt securities sold daily on the global capital market. A debt security is an asset given to investors in exchange for investor capital, which will mature over time and generate investor interest. From here, liquidity must be issued out to each regional FHLBank separately. To determine how these funds are distributed, the FHLBs evaluate their regions’ needs and place orders with the Office of Finance. After this, regional FHLBs now have access to liquidity and begin to lend out advances according to their members’ needs.19

A key component of this approach is that FHLBs are not just an emergency liquidity provider but operates year-round and in all market conditions. Members of the FHLBs will regularly utilize liquidity to meet daily needs, as its highly secure lending and debt repayment structure allows it to offer low rates on quick funds. All loans require that members buy FHLB stocks in proportion to a percentage of their loan determined by each FHLB’s capital requirements.20 These rates are determined by risk level and help to add even more resiliency to the bank’s solvency.

If one of the regional FHLBs is unable to pay its debt obligations, it is the legal responsibility of the other regional banks to repay. For this reason, the FHLB System has the responsibility and redundant safeguards of securing obligations toward liquidity-providing investors.


Together, the capital requirements, lending under all market conditions, distributed debt obligations and previously discussed government benefits make debt securities from FHLBs attractive assets for investors. The ability to generate liquidity through the credit market instead of through the Federal Reserve credit extension has a public benefit in itself.

Because the FHLB System's liquidity is supplied through global credit markets, its effect on the money supply is theoretically negligible. As stated earlier, all money issued by the FHLB as an advance into the economy is balanced by debt securities that take investor funds out of the economy. In theory, this system should be relatively neutral to changes in the money supply. This can be useful in a crisis when banks require liquidity and when the Federal Reserve is trying to tighten the money supply. Otherwise, the Federal Reserve's liquidity policies would be detrimental to their monetary policies, consistent with monetary theory.

If the Federal Reserve were attempting to control inflation and creeping interest rates while at the same time, banks were experiencing liquidity constraints and needed to access the DW, the result could be a monetary agenda at war with itself. Though money supply is not the only factor in inflation, the Fed still conducts policies in relation to the money supply. Because of this, the utility of a liquidity provision mechanism that is relatively money supply neutral is evident. The limit to this money supply-neutral liquidity provider is that set by the global credit market. A true lender of last resort would need access to "new money" to unilaterally backstop a large financial crisis.

**The Great Financial Crisis**

In Q4 of 2007, the housing bubble in the United States burst as mortgage-backed securities rapidly depreciated. Bank assets lost value putting balances in a steep deficit. Fear that depositors may begin to pull their money out of these institutions led to a liquidity crisis. Banks and credit unions sought lenders who could provide them with liquidity to backstop against withdrawals.

For this purpose, there are generally two immediate options, the DW and FHLBs. The DW was designed as the primary choice for commercial banks in need of liquidity. In the early stages of the crisis, the discount rates (the rates at which the DW lent short-term credit) dropped to only 50 basis points (one-hundredth of one percent) above the federal funds rate. Despite these attractive rates on immediate liquidity, banks largely ignored the DW until December 2007, four months into the crisis. Some have claimed this was due to a prevailing stigma associated with borrowing from the lender of last resort. Though some evidence suggests this stigma played a role, it is also clear that borrowers had a lower rate alternative to the DW during this period. They only switched to the DW when rates changed.

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to make that option more attractive. The other option that dominated liquidity markets during the early crisis was FHLBs. Examining the changes in money supply shown in Table 1 demonstrates that between the start of the crisis and when the Fed liquidity extension rapidly expanded, the money supply was relatively stable. Despite the steady growth in FHLB advances during this period, as banks experienced liquidity crunches, the money supply did not have a rapid response.

As discussed previously, because FHLBs are never creating “new money” there should not be a change in the money supply resulting from fund extension. The only change in the money supply should result from the creation of the Federal Reserve Credit, which is either lent straight to banks or used to buy FHLB debt. The latter option may result in FHLBs having some effect on money supply, but never to the degree as the Fed liquidity facilities.

Table 2 demonstrates that when comparing the Fed’s quarterly liquidity extension to the FHLBs’ quarterly net advances, the Fed becomes the dominant quarterly provider by Q1 2008. This also shows that the Fed’s liquidity actions move in lockstep with the money supply, while the same is not the case for FHLB actions. This distinction, again, shows why both the DW and FHLB loans have complementary, and not identical, purposes for stabilizing the banking system.

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Conclusion

The FHLB System’s role may sound redundant to people who assume that the Federal Reserve should be the banking sector’s sole lender in a crisis. Having a second institution with a fundamentally different structure gives our economy more stability than if only the Federal Reserve existed. Different liquidity providers create different externalities and have different limitations. While the Fed will always be the lender of last resort, because of its ability to create “new money,” this same factor makes FHLBs crucial and complementary. The ability to provide low-interest short-term liquidity through attractive debt securities without creating new money provides market stability without interfering with monetary policy during a liquidity crisis.

At a time when the Federal Reserve is attempting to “contract” the money supply to bring down inflation, a sudden injection of new money into the economy could threaten to undo any progress made thus far. At the same time, multiple large banks have faced insolvency, thereby threatening to disrupt the financial sector. To backstop bank deposits and maintain the Federal Reserve’s monetary policy, a money supply-neutral lender is needed. Only through maintaining the FHLB System’s current government benefits, and without expanding their affordable housing obligations, will the GSE be able to fulfill this vital role.