

## CREDIT OPINION

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Update

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# Federal Home Loan Bank of New York

## Semiannual Update

### Summary Rating Rationale

The Federal Home Loan Bank of New York (FHLBank of New York or FHLBank) Aaa long term rating and Prime-1 short-term deposit ratings reflect the combination of the FHLBank of New York's Baseline Credit Assessment (BCA) of aa3, very high cooperative support from the FHLBank System and very high systemic support from the US government (Aaa debt rating). The outlook for all ratings is stable.

The FHLBank of New York's BCA is aa3 due to the excellent asset quality of its advance portfolio, investment portfolio, and mortgage portfolio, along with its consistent earnings generation and its role as a central liquidity provider for US banks. The FHLBank of New York benefits from its very strong advance business as compared to the other FHLBanks, with a carrying value of \$109.3 billion as of FY 2016, up from \$93.9 billion as of FY 2015.

The aa3 BCA reflects Moody's opinion about the FHLBank of New York's intrinsic or stand-alone financial strength and excludes extraordinary support, from the US Government. The FHLBank of New York's aa3 BCA receives zero notches of support from the FHLBank System given the FHLBank System's a1 BCA. Moody's very high US government support assumption lifts the FHLBank's deposit ratings to Aaa.

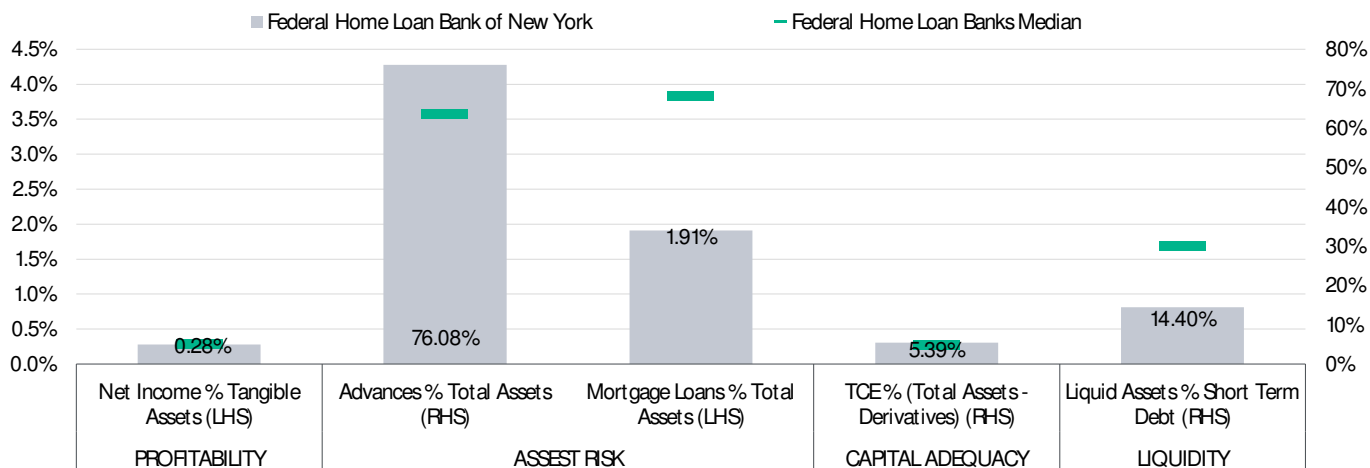
The outlook on the FHLBank of New York's Aaa long-term deposit, as well as the FHLBank System's Aaa debt ratings is stable, reflecting the stable outlook on the US government. Any rating actions on the US Government would likely result in a corresponding movement in all individual FHLBanks' long-term deposit ratings and the FHLBank System's long-term bond rating.

### GSE Reform

GSE reform has not progressed very far. To date, the reform is primarily focused on the roles of Fannie Mae and Freddie Mac. However, the FHLBanks are likely to be included in the reform, though the impact remains uncertain. Moody's will monitor GSE reform as it progresses, as well as its impact on the FHLBanks.

Exhibit 1

## Rating Scorecard - Key Financial Ratios



Source: Moody's Financial Metrics

## Credit Strengths

- » Joint and several liability reduces default risk of System-wide liabilities
- » Central liquidity provider to US banks
- » Excellent asset quality of its advance portfolio, investment portfolio, and mortgage portfolio

## Credit Challenges

- » Narrow charter and bank consolidation limit growth
- » Substantial single borrower concentrations

## Rating Outlook

Moody's stable outlook for the FHLBank System's long-term bond rating and the FHLBank of New York's long-term deposit ratings reflects the stable outlook of the US government's Aaa debt rating.

## Factors that Could Lead to an Upgrade

Factors that would lead to an upgrade of FHLBank of New York's BCA include increasing capital levels well in excess of regulatory requirements and consistently higher risk-adjusted returns, achieving both while maintaining strong asset quality.

## Factors that Could Lead to a Downgrade

Any rating actions on the US Government would likely result in a corresponding movement in all individual FHLBanks' long-term deposit ratings and the FHLBank System's long-term bond rating.

Barring a downgrade of the US sovereign rating or a material downgrade of FHLBank System's BCA, Moody's does not expect changes to the FHLBank of New York's long- and short-term deposit ratings. This is due to the fact that the deposit ratings incorporate an expectation of a very high degree of US Government support.

Factors that could lead to a downgrade of the FHLBank of New York's aa3 BCA include a material decline in profitability (quarterly net losses over four quarters) or significant asset-liability mismatches.

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## Key Indicators

Exhibit 2

### Federal Home Loan Bank of New York [1] [2]

	2016 [2]	2015 [2]	2014 [2]	2013 [2]
Total Assets (USD million)	143,606	123,239	132,825	128,333
Tangible common equity (USD million)	7,729	6,858	6,661	6,579
Total shareholders' equity (USD million)	7,656	6,739	6,545	6,510
Return on average assets (FHLB)	0.31%	0.34%	0.26%	0.27%
Return on average equity (FHLB)	5.86%	6.61%	4.88%	5.22%
Advances % Total assets	76.1%	76.2%	74.4%	70.7%
Mortgage Loans % Total assets	1.91%	2.05%	1.61%	1.51%
Retained earnings and related reserves % Total assets	0.98%	1.03%	0.82%	0.78%
Private Label MBS % Total Assets	0.01%	0.02%	0.26%	0.31%
YTD net interest margin (FHLB)	0.43%	0.46%	0.36%	0.38%
Total regulatory capital ratio	5.40%	5.58%	5.03%	5.14%
Liquid Assets (FHLB) % Short term debt	14.40%	14.96%	20.40%	24.42%

[1] All figures and ratios are adjusted using Moody's standard adjustments [2] US GAAP  
Source: Moody's Financial Metrics

## Detailed Rating Considerations

The FHLBank of New York lends to member institutions in the form of advances, which are over-collateralized and generally short-term, minimizing the credit risk on these loans. In addition, the FHLBanks benefit from their statutory lien priority with respect to pledged member assets. Moody's baseline credit assessment represents our opinion of the likelihood that the institution will require extraordinary support from an external party. The FHLBank of New York's high aa3 BCA reflects the bank's strong credit culture, and stable, although low, profitability. Below are the detailed rating factors that influence the FHLBank's ratings and outlook.

### Profitability

FHLBank of New York's low but consistent profitability (as measured by ROAA) reflects the primarily low risk profile of its asset base. As of FY 2016, the FHLBank of New York's ROAA was 0.31%, down from 0.34% as of FY 2015, compared to a median of 1.0% for A-rated US Banks in 2016.

### Capital Adequacy

The FHLBank of New York is required by legislation to maintain minimum regulatory capital of 4% of its total assets. As of FY 2016, the capital ratio of the FHLBank was 5.40%, compared to 5.58% as of FY 2015. Over the longer term, Moody's expects that the FHLBank's capital levels will return to more normal levels around 4.5% to 5.0%.

### Asset Quality and Credit Risk Management

Moody's believes that the asset quality of the FHLBank of New York is exceptional.

Advances, which represent about 76% of total assets, are over-collateralized and the FHLBank has never incurred a loss on an advance in its more than 80 year history. Similar to other FHLBanks, the FHLBank of New York has significant borrower concentrations, a long-term earnings risk. Its top five advance borrowers represented 45.51% of total assets as of FY 2016.

The FHLBank of New York's investment portfolio consists of high quality investments including US government and agency guaranteed securities.

The FHLBank of New York's mortgage portfolio, representing 1.91% of total assets as of FY 2016, is similar to other FHLBanks, has experienced far lower losses and delinquencies than industry averages.

## Interest Rate Risk Management

The FHLBank of New York conservatively manages its interest rate risk exposures through the use of debt with similar characteristics to the FHLBanks assets, as well as derivatives. The FHLBank's primary asset is advances, which come in a variety of types, including fixed rate, variable rate, callable by the member as well as puttable advances. With a puttable advance, the FHLBank purchases a put option from the member that allows the FHLBank to terminate the fixed rate advance on specified dates and offer, subject to certain conditions, replacement funding at prevailing market rates. Prepayment fees, which mitigate interest rate risk, are also a common feature of advances.

## Liquidity and Funding

The FHLBanks' GSE status has provided it with consistent and stable access to the debt market. Consequently, the FHLBanks generally maintain lower liquidity than non-GSE entities. As of FY 2016, the FHLBank of New York had liquid assets as a percentage of short term debt of 14.4%, as compared to 25.5% for the FHLBank System.

The Federal Housing Finance Agency, the regulator of the FHLBanks, requires each FHLBank to maintain sufficient liquidity in an amount at least equal to an FHLBank's anticipated cash outflows under two different scenarios. One scenario assumes that an FHLBank cannot access the capital markets for a period of between 10 to 20 days, with initial guidance set at fifteen days and members do not renew any maturing, prepaid and called advances. The second scenario assumes that an FHLBank cannot access the capital markets for a period of between three to seven days, with initial guidance set at five days during which members will automatically renew maturing and called advances for all members except very large, highly rated members. The FHLBank of New York also met all other internal liquidity requirements at FY 2016.

## Key Relationship with the FHLBank System

A significant underpinning of the Baseline Credit Assessments is the joint and several nature of the consolidated obligations of the FHLBank System. The financial strength of individual FHLBanks is very sound, and the joint and several liability contributes to the overall strength of the FHLBank System by narrowing any ratings differences among the individual FHLBanks that could exist were ratings to exclude the joint and several feature. As a result, the ratings of the weakest FHLBanks are increased, and the ratings of the strongest are lowered.

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## Ratings

Exhibit 3

Category	Moody's Rating
<b>FEDERAL HOME LOAN BANK OF NEW YORK</b>	
Outlook	Stable
Bank Deposits	Aaa/P-1
<b>PARENT: FEDERAL HOME LOAN BANKS</b>	
Outlook	Stable
Senior Unsecured	Aaa
ST Issuer Rating	P-1

Source: Moody's Investors Service

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