

JPMORGAN CHASE & Co.

LIQUIDITY COVERAGE RATIO DISCLOSURE

For the quarterly period ended December 31, 2023

Table of Contents

| | |
|--|---|
| Liquidity Coverage Ratio | 1 |
| High Quality Liquid Assets and other liquidity sources | 3 |
| Net Cash Outflows | 4 |
| Sources of funds | 5 |
| Deposits | 5 |
| Short-term funding | 6 |
| Long-term funding and issuance | 6 |
| Off-balance sheet obligations and transactions | 7 |
| Off-balance sheet lending-related financial instruments, guarantees, and other commitments | 7 |
| Derivative contracts | 7 |
| Liquidity management | 8 |
| Liquidity risk management | 8 |
| Internal stress testing | 8 |
| Governance | 8 |

LIQUIDITY COVERAGE RATIO

Liquidity coverage ratio

The U.S. Liquidity Coverage Ratio rule (the “LCR rule”) requires that JPMorgan Chase & Co. (“the Firm”) and JPMorgan Chase Bank, National Association (“JPMorgan Chase Bank, N.A.”) maintain an amount of eligible High Quality Liquid Assets (“HQLA”) that is sufficient to meet their respective estimated total net cash outflows over a prospective 30 calendar-day period of significant stress. Eligible HQLA, for purposes of calculating the LCR, is the amount of unencumbered HQLA that satisfy certain operational considerations as defined in the LCR rule. HQLA primarily consist of cash and certain high-quality liquid securities as defined in the LCR rule. The LCR for both the Firm and JPMorgan Chase Bank, N.A. is required to be a minimum of 100%.

Under the LCR rule, the amount of eligible HQLA held by JPMorgan Chase Bank, N.A. that is in excess of its stand-alone 100% minimum LCR requirement, and that is not transferable to non-bank affiliates, must be excluded from the Firm’s reported eligible HQLA.

The following table summarizes the Firm and JPMorgan Chase Bank, N.A.’s average LCR for the three months ended December 31, 2023 based on the Firm’s interpretation of the finalized LCR framework.

| Average weighted amount ^(a) (in millions) | Three months ended December 31, 2023 |
|---|---|
| JPMorgan Chase & Co.: | |
| Eligible HQLA ^(b) | \$ 798,628 |
| Net cash outflows | 704,857 |
| LCR | 113 % |
| Excess eligible HQLA ^(b) | \$ 93,771 |
| JPMorgan Chase Bank, N.A.: | |
| LCR | 129 % |
| Excess eligible HQLA | \$ 215,190 |

(a) Represents the average weighted amount after applying regulatory prescribed (1) HQLA haircuts; and (2) cash outflow and inflow rates, respectively.

(b) Excludes average excess eligible HQLA at JPMorgan Chase Bank, N.A. that are not transferable to non-bank affiliates.

The Firm's average LCR was driven by:

- Eligible HQLA, which primarily consists of cash on deposit at central banks and eligible Level 1 securities, and,
- Net cash outflows predominantly related to the Firm’s deposits, lending-related commitments and, to a lesser extent, derivatives and unsecured debt.

The Firm’s average LCR was 113%, 112% and 112% for the three months ended December 31, 2023, September 30, 2023 and December 31, 2022.

JPMorgan Chase Bank, N.A.’s average LCR was 129%, 123% and 151% for the three months ended December 31, 2023, September 30, 2023 and December 31, 2022.

JPMorgan Chase Bank, N.A.’s average LCR increased during the three months ended December 31, 2023, compared with the three months ended September 30, 2023, driven by Corporate Investment Bank (‘CIB’) market activities, partially offset by loan growth.

JPMorgan Chase Bank, N.A.’s average LCR for the three months ended December 31, 2023 decreased compared with the three months ended December 31, 2022, reflecting a decrease in JPMorgan Chase Bank, N.A.’s HQLA as a result of a reduction in cash due to a decline in average deposits and loan growth, as well as the impact of First Republic and lower market values of HQLA-eligible investment securities. These impacts were partially offset by CIB markets activities.

Refer to Note 10 and Note 34 in the JPMorgan Chase's Annual Report on Form 10-K for the year end December 31, 2023 ("Form 10-K") for additional information on the Firm's investment securities portfolio and the First Republic acquisition.

Actions by the Federal Reserve have impacted depositor behavior, resulting in reductions to system-wide deposits, including those held by the Firm. Each of the Firm and JPMorgan Chase Bank, N.A.’s average LCR may fluctuate from period to period due to changes in their respective eligible HQLA and estimated net cash outflows as a result of ongoing business activity and from the continued impacts of Federal Reserve actions as well as other factors.

The following table presents further detail on the Firm's average LCR, and average unweighted and weighted amount of eligible HQLA, cash outflows and cash inflows, for the three months ended December 31, 2023.

| Three months ended December 31, 2023 (in millions) | | Average Unweighted Amount ^(a) | Average Weighted Amount ^(b) |
|---|--|--|---|
| HIGH-QUALITY LIQUID ASSETS | | | |
| 1 | Total eligible high-quality liquid assets (HQLA), of which: ^(c) | \$ 798,628 | \$ 798,628 |
| 2 | Eligible level 1 liquid assets | 798,628 | 798,628 |
| 3 | Eligible level 2A liquid assets | – | – |
| 4 | Eligible level 2B liquid assets | – | – |
| CASH OUTFLOW AMOUNTS | | | |
| 5 | Deposit outflow from retail customers and counterparties, of which: | \$ 1,221,417 | \$ 92,411 |
| 6 | Stable retail deposit outflow | 683,935 | 20,518 |
| 7 | Other retail funding outflow | 404,992 | 45,147 |
| 8 | Brokered deposit outflow | 132,490 | 26,746 |
| 9 | Unsecured wholesale funding outflow, of which: | 1,130,407 | 441,697 |
| 10 | Operational deposit outflow | 690,846 | 172,189 |
| 11 | Non-operational funding outflow | 434,449 | 264,396 |
| 12 | Unsecured debt outflow | 5,112 | 5,112 |
| 13 | Secured wholesale funding and asset exchange outflow ^(d) | 718,469 | 254,673 |
| 14 | Additional outflow requirements, of which: | 640,934 | 212,732 |
| 15 | Outflow related to derivative exposures and other collateral requirements | 91,012 | 71,960 |
| 16 | Outflow related to credit and liquidity facilities including unconsolidated structured transactions and mortgage commitments | 549,922 | 140,772 |
| 17 | Other contractual funding obligation outflow | 2,151 | 2,151 |
| 18 | Other contingent funding obligations outflow^(e) | 316,361 | 11,383 |
| 19 | TOTAL CASH OUTFLOW | \$ 4,029,739 | \$ 1,015,047 |
| CASH INFLOW AMOUNTS | | | |
| 20 | Secured lending and asset exchange cash inflow^(d) | \$ 850,053 | \$ 280,401 |
| 21 | Retail cash inflow | 29,784 | 14,892 |
| 22 | Unsecured wholesale cash inflow^(f) | 26,141 | 22,071 |
| 23 | Other cash inflows, of which: | 45,430 | 45,235 |
| 24 | Net derivative cash inflow | 12,988 | 12,988 |
| 25 | Securities cash inflow | 5,343 | 5,343 |
| 26 | Broker-dealer segregated account inflow | 26,904 | 26,904 |
| 27 | Other cash inflow | 195 | – |
| 28 | TOTAL CASH INFLOW | \$ 951,408 | \$ 362,599 |
| 29 | HQLA AMOUNT^(c) | | Average Weighted Amount^(b) \$ 798,628 |
| 30 | TOTAL NET CASH OUTFLOW AMOUNT EXCLUDING THE MATURITY MISMATCH ADD-ON | | \$ 652,448 |
| 31 | MATURITY MISMATCH ADD-ON | | 52,409 |
| 32 | TOTAL NET CASH OUTFLOW AMOUNT | | \$ 704,857 |
| 33 | LIQUIDITY COVERAGE RATIO (%) | | 113 % |

(a) Represents the average notional amount of (1) eligible HQLA before applying regulatory-prescribed haircuts; and (2) balances subject to outflows and inflows over a prospective 30-day period before applying regulatory-prescribed outflow and inflow rates.

(b) Represents the average weighted amount after applying regulatory prescribed (1) HQLA haircuts; and (2) cash outflow and inflow rates, respectively.

(c) Excludes average excess eligible HQLA at JPMorgan Chase Bank, N.A. that are not transferable to non-bank affiliates.

(d) Outflows on line 13 predominantly relate to securities loaned or sold under repurchase agreements and collateralized deposits; these amounts are more than offset by inflows reported on line 20 from securities borrowed or purchased under resale agreements and margin loans. These amounts include outflows and inflows associated with certain prime brokerage activities.

(e) Reflects repurchases of debt securities issued by the Firm that mature more than 30 calendar days after the calculation date.

(f) Includes repayments of wholesale loans.

High quality liquid assets

As mentioned above, eligible HQLA is the amount of liquid assets that qualify for inclusion in the LCR. HQLA primarily consist of unencumbered cash and certain high-quality liquid securities as defined in the LCR rule.

For the three months ended December 31, 2023, the Firm's average eligible HQLA was \$799 billion compared with average eligible HQLA of \$781 billion for the three months ended September 30, 2023. These amounts exclude the amount of eligible HQLA at JPMorgan Chase Bank, N.A that is in excess of its stand-alone 100% minimum LCR requirement, and that is not transferable to non-bank affiliates.

The following table presents the Firm's average eligible HQLA included in the LCR broken out by eligible HQLA cash and securities for the three months ended December 31, 2023.

| Average weighted amount (in millions) | Three months ended December 31, 2023 |
|--|---|
| Eligible HQLA | |
| Eligible cash ^(a) | \$ 485,263 |
| Eligible level 1 securities ^{(b)(c)} | 313,365 |
| Total eligible Level 1 assets | 798,628 |
| Eligible level 2a securities ^{(b)(d)} | — |
| Eligible level 2b securities ^(b) | — |
| Total eligible HQLA | \$ 798,628 |

(a) Represents cash on deposit at central banks, primarily the Federal Reserve Banks.

(b) Eligible HQLA securities may be reported in securities borrowed or purchased under resale agreements, trading assets, or investment securities on the Firm's Consolidated balance sheets. For purposes of calculating the LCR, HQLA securities are included at fair value, which may differ from the accounting treatment under U.S. GAAP.

(c) Primarily U.S. Treasuries, U.S government agency mortgage-backed securities ("MBS") and sovereign bonds net of regulatory haircuts under the LCR rule. Excludes excess level 1 securities held by JPMorgan Chase Bank, N.A.

(d) Primarily U.S. government-sponsored enterprise ("GSE") agency MBS net of applicable haircuts under the LCR rule. Excludes excess level 2a securities held by JPMorgan Chase Bank, N.A.

Other liquidity sources

In addition to the assets reported in the Firm's eligible HQLA discussed above, the Firm had unencumbered marketable securities, such as equity and debt securities, that the Firm believes would be available to raise liquidity. This includes excess eligible HQLA securities at JPMorgan Chase Bank, N.A. that are not transferable to non-bank affiliates. The fair value of these securities was approximately \$649 billion as of December 31, 2023, although the amount of liquidity that could be raised at any particular time would be dependent on prevailing market conditions.

The Firm also had available borrowing capacity at the Federal Home Loan Banks ("FHLBs") and the discount window at the Federal Reserve Banks as a result of collateral pledged by the Firm to such banks of approximately \$340 billion as of December 31, 2023. This borrowing capacity excludes the benefit of cash and securities reported in the Firm's eligible HQLA or other unencumbered securities that are currently pledged at the Federal Reserve Banks discount window and other central banks. Although available, the Firm does not view this borrowing capacity at the Federal Reserve Banks discount window and the other central banks as a primary source of liquidity. For additional information, see Liquidity Risk Management on pages 54-61 of the 2023 Form 10-K.

Net cash outflows

The Firm's estimated net cash outflows over the aforementioned 30-day period of stress are based on standardized stress outflow and inflow rates prescribed in the LCR rule, which are applied to the balances of the Firm's assets, sources of funds, and obligations. The net cash outflows included in the LCR may differ from the liquidity impacts the Firm may experience in an actual time of stress, due to uncertainty in the nature, severity, and duration of the stress event.

The following table summarizes a select range of outflow and inflow rates defined in the LCR rule:

| Category | Average Unweighted Amount | Outflow/Inflow rate | | | |
|---|---|---------------------|--|------|--|
| | | Minimum | Maximum | | |
| Deposits from retail customers and counterparties | Notional balance (excludes deposits not subject to early withdrawal with maturities >30 days) | 3% | Fully insured | 40% | Partially insured, third-party placed, including brokered and non-brokered |
| Unsecured wholesale funding | | | | | |
| Deposits | Notional balance (excludes contractual maturities >30 days and those not subject to early withdrawal) | 5% | Fully insured, non-financial and financial, operational | 100% | Financial, non-operational, hedge funds and private equity funds |
| Non-deposit funding, including debt | Notional balance with contractual maturities ≤30 days | | | 100% | Long-term debt, commercial paper, other borrowed funds, customer brokerage payables, federal funds purchased |
| Secured wholesale funding/lending transactions | | | | | |
| Secured wholesale funding/lending transactions | Notional balance with contractual maturities ≤30 days | 0% | Secured by Level 1 liquid assets; secured lending where the collateral has been rehypothecated and the transaction is assumed to mature beyond 30 days | 100% | Funding transactions secured by non-HQLA assets; excluding the transactions below that are subject to lower outflow rates: (1) transactions with sovereigns, multilateral development banks and U.S. GSEs that are assigned a 20% risk weight, and (2) customer short positions covered by other customers' collateral |
| | | | | 100% | Lending transactions secured by assets, not included in the Firm's HQLA and available for immediate return or secured by non-HQLA, excluding non-HQLA secured margin loans that are subject to lower inflow rates |
| Derivatives | | | | | |
| Contractual | Notional balance of cash and collateral associated with transactions maturing ≤30 days | | | 100% | Net cash outflow/inflow |
| Contingent | Notional balance of collateral securing derivative transactions | 20% | Potential valuation change in collateral pledged that is not a Level 1 liquid asset | 100% | Collateral outflow resulting from a change in the Firm's financial condition or due to a change in the valuation of derivative transactions; excess client collateral |
| Commitments | | | | | |
| Commitments | Notional balance that can be drawn in ≤30 days | 0% | Affiliated depository institutions also subject to LCR rule | 100% | Financial sector institutions or subsidiaries thereof |
| Other contingent funding obligations (primarily Firm-issued debt securities) | | | | | |
| Other contingent funding obligations (primarily Firm-issued debt securities) | Notional balance with contractual maturities >30 days | 3% | Unstructured debt | 5% | Structured debt |
| Retail and wholesale cash inflow (primarily loans) | Notional balance with contractual maturities ≤30 days | 50% | Retail/SME ^(a) loans with contractual maturities ≤30 days | 100% | Financial sector loans and non-operational deposit placements |

(a) SME - small and medium enterprises

Sources of funds

The Firm funds its global balance sheet through diverse sources of funding including stable deposits, secured and unsecured funding in the capital markets and stockholders' equity. Deposits are the primary funding source for JPMorgan Chase Bank, N.A. Additionally, JPMorgan Chase Bank, N.A. may access funding through short- or long-term secured borrowings, the issuance of unsecured long-term debt, or from borrowings from the Intermediate Holding Company ("IHC"), a subsidiary of the Parent Company. The Firm's non-bank subsidiaries are primarily funded from long-term unsecured borrowings and short-term secured borrowings which are primarily securities loaned or sold under repurchase agreements. Excess funding is invested by Treasury and Chief Investment Office ("CIO") in the Firm's investment securities portfolio or deployed in cash or other short-term liquid investments based on their interest rate and liquidity risk characteristics.

Deposits

The Firm believes that deposits provide a stable source of funding and reduce the Firm's reliance on the wholesale funding markets. A significant portion of the Firm's deposits are consumer deposits and wholesale operating deposits, which are both considered to be stable sources of liquidity. Wholesale operating deposits are generally considered to be stable sources of liquidity because they are generated from customers that maintain operating service relationships with the Firm.

For the three months ended December 31, 2023, the Firm had total average unweighted retail deposits of \$1,221 billion and average weighted cash outflows of \$92 billion, which resulted in an implied LCR cash outflow rate of 8%, and a 92% liquidity value. Additionally, for the three months ended December 31, 2023, the Firm had total average unweighted operating deposit balances of \$691 billion and average weighted cash outflows of \$172 billion, which resulted in an implied LCR cash outflow rate of 25%, and a 75% liquidity value.

The table below summarizes the average deposit cash outflows for purposes of the LCR for the three months ended December 31, 2023. Prescribed outflow rates are applied to the funding sources to calculate the average weighted amount of cash outflows included in the Firm's LCR.

| Deposit Outflows ^(a) Three months ended December 31, 2023 (in millions) | Average Unweighted Amount | Average Weighted Amount | Cash Outflow Percentage |
|--|------------------------------|----------------------------|----------------------------|
| Deposit outflow from retail customers and counterparties, of which: | \$ 1,221,417 | \$ 92,411 | 8 % |
| Stable retail deposit outflow | 683,935 | 20,518 | 3 % |
| Other retail funding outflow ^(b) | 404,992 | 45,147 | 11 % |
| Brokered deposit outflow | 132,490 | 26,746 | 20 % |
| Operational deposit outflow | 690,846 | 172,189 | 25 % |
| Non-operational funding outflow^{(b)(c)} | 434,449 | 264,396 | 61 % |
| Total | \$ 2,346,712 | \$ 528,996 | 23 % |

(a) Excludes approximately \$64 billion of average unweighted collateralized deposits, margin cash, and non-retail/SME time deposits with contractual maturities greater than 30 days per the LCR rule.

(b) Includes approximately \$39 billion of average unweighted non-deposit funding, primarily retail and wholesale customer brokerage payables, other customer payables, and other unsecured wholesale funding (which are included in accounts payable and other liabilities, and federal funds purchased and securities loaned or sold under repurchase agreements on the Firm's Consolidated balance sheets).

(c) Largely relates to cash in client operational accounts that is estimated to be in excess of the amount needed to support operational services provided to those clients.

Short-term funding

The Firm's sources of short-term secured funding primarily consist of securities loaned or sold under agreements to repurchase. These instruments are secured predominantly by high-quality securities collateral, including government-issued debt and U.S. GSE and government agency MBS.

The Firm's sources of short-term unsecured funding primarily consist of issuances of wholesale commercial paper and other borrowed funds.

Long-term funding and issuance

Long-term funding provides an additional source of stable funding and liquidity for the Firm. The Firm's long-term funding plan is driven primarily by expected client activity, liquidity considerations and regulatory requirements, including Total Loss-Absorbing Capacity. Long-term funding objectives include maintaining diversification, maximizing market access and optimizing funding costs. The Firm evaluates various funding markets, tenors and currencies in creating its optimal long-term funding plan.

The significant majority of the Firm's total outstanding long-term debt has been issued by the Parent Company to provide flexibility in support of the funding needs of both bank and non-bank subsidiaries. The Parent Company advances substantially all net funding proceeds to its subsidiary, the IHC. The IHC does not issue debt to external counterparties. For additional information on long-term debt, see Note 20 of the JPMorgan Chase's Annual Report on Form 10-K for the year ended December 31, 2023.

The Firm can also raise secured long-term funding through securitization of consumer credit card loans and FHLB advances.

The following table summarizes average short-term and long-term funding, excluding deposits, as reported on the Firm's consolidated balance sheets, for the three months ended December 31, 2023. For additional information, see the Consolidated Balance Sheet Analysis on pages 16-18 and Liquidity Risk Management on pages 54-61 of the 2023 Form 10-K.

| Sources of funds (excluding deposits) | |
|---|----------------|
| Three months ended December 31, 2023 | |
| (in millions) | Average Amount |
| Total short-term unsecured funding | \$ 25,307 |
| Total short-term secured funding ^(a) | \$ 292,254 |
| Total long-term unsecured funding | \$ 282,865 |
| Total long-term secured funding | \$ 96,064 |
| Preferred stock ^(b) | \$ 27,404 |
| Common stockholders' equity ^(c) | \$ 294,062 |

(a) Primarily consists of short-term securities loaned or sold under agreements to repurchase which are reported net on the Firm's Consolidated balance sheets when the relevant netting criteria under U.S. GAAP have been met.

(b) For additional information on preferred stock see Capital Risk Management on pages 48-53 and Preferred Stock Note 21 of the 2023 Form 10-K.

(c) For additional information on common stockholders' equity see Capital Risk Management on pages 91-101 and Common Stock Note 22 of the 2023 Form 10-K.

Off-balance sheet obligations and transactions

In addition to the sources of funds described above, the LCR rule also requires the Firm to apply prescribed outflow and inflow rates against off-balance sheet obligations and transactions, primarily the Firm's lending-related commitments and derivative contracts.

Off-balance sheet lending-related financial instruments, guarantees, and other commitments

In the normal course of business, the Firm enters into a number of off-balance sheet commitments to extend credit such as loan commitments, financial guarantees, standby letters of credit and commercial letters of credit to meet the financing needs of its customers. Unfunded commitments are the undrawn portion of such legally binding commitments to extend credit to customers. Unfunded commitments for (a) working capital and general corporate purposes, (b) extensions of credit to backstop commercial paper and other debt financings (whether in the form of a loan commitment, a letter of credit or a standby bond purchase agreement) in the event that those obligations cannot be refinanced or remarketed to new investors, and (c) committed liquidity facilities to clearing organizations, expose the Firm to varying levels of liquidity risk, and as such are subject to prescribed outflow rates under the LCR rule.

Additionally, the Firm provides other types of commitments in the form of financial instruments (e.g., certain credit lines) to its customers. The Firm can reduce or cancel these types of commitments by providing the borrower notice, or in some cases as permitted by law, without notice. Therefore, under the LCR rule, the notional amount of these commitments is not taken into consideration when calculating the Firm's net cash outflows.

Derivative contracts

Derivatives enable clients and counterparties to manage risks including credit risk and risks arising from fluctuations in interest rates, foreign exchange, equities, and commodities. The Firm makes markets in derivatives in order to meet these needs and uses derivatives to manage certain risks associated with net open risk positions from its market-making activities, including the counterparty credit risk arising from derivative receivables. The Firm also uses derivative instruments to manage its own credit and other market risk exposure. The LCR net cash outflows related to derivative contracts primarily reflect potential calls from counterparties for the Firm to post additional collateral in the form of variation margin or initial margin due to potential valuation changes or downgrades of the Firm's external credit ratings. In addition, the LCR net derivative cash outflows reflect counterparties' contractual right to substitute higher-quality collateral with lower quality collateral, as well as requiring the return of initial margin to clients. Substantially all of the Firm's OTC collateralized derivative transactions are required to be collateralized by HQLA eligible securities or cash which under the LCR rule results in limited outflows due to potential collateral valuation changes or collateral substitution. For additional information on derivative contracts, see pages 78-79 of the 2023 Form 10-K.

Liquidity management

Treasury and CIO is responsible for liquidity management. The primary objectives of effective liquidity management are to:

- Ensure that the Firm's core businesses and material legal entities are able to operate in support of client needs and meet contractual and contingent financial obligations through normal economic cycles as well as during stress events, and
- Manage an optimal funding mix and availability of liquidity sources.

The Firm addresses these objectives through:

- Analyzing and understanding the liquidity characteristics of the assets and liabilities of the Firm, lines of businesses legal entities, as well as currencies, taking into account legal, regulatory, and operational restrictions;
- Developing internal liquidity stress testing assumptions;
- Defining and monitoring Firmwide and legal entity-specific liquidity strategies, policies, reporting and contingency funding plans;
- Managing liquidity within the Firm's approved liquidity risk appetite tolerances and limits;
- Managing compliance with regulatory requirements related to funding and liquidity risk; and
- Setting funds transfer pricing in accordance with underlying liquidity characteristics of balance sheet assets and liabilities as well as certain off-balance sheet items.

As part of the Firm's overall liquidity management strategy, the Firm manages liquidity and funding using a centralized, global approach designed to:

- Optimize liquidity sources and uses;
- Monitor exposures;
- Identify constraints on the transfer of liquidity between the Firm's legal entities; and
- Maintain the appropriate amount of surplus liquidity at a Firmwide and legal entity level, where relevant.

Liquidity risk management

The Firm has a Liquidity Risk Management ("LRM") function whose primary objective is to provide independent oversight of liquidity risk across the Firm. Liquidity Risk Management's responsibilities include:

- Defining, monitoring and reporting liquidity risk metrics;
- Independently establishing and monitoring limits and indicators, including liquidity risk appetite;
- Developing a process to classify, monitor and report limit breaches;

- Performing an independent review of liquidity risk management processes to evaluate their adequacy and effectiveness;
- Monitoring and reporting internal Firmwide and legal entity liquidity stress tests, regulatory defined metrics, as well as liquidity positions, balance sheet variances and funding activities; and
- Approving or escalating for review new or updated liquidity stress assumptions.

Internal stress testing

The Firm conducts internal liquidity stress testing that is intended to ensure that the Firm and its material legal entities have sufficient liquidity under a variety of adverse scenarios, including scenarios analyzed as part of the Firm's resolution and recovery planning. Internal stress tests are produced on a regular basis, and other stress tests are performed in response to specific market events or concerns. Liquidity stress tests assume all of the Firm's contractual financial obligations are met and take into consideration:

- Varying levels of access to unsecured and secured funding markets;
- Estimated non-contractual and contingent cash outflows;
- Credit rating downgrades;
- Collateral haircuts; and
- Potential impediments to the availability and transferability of liquidity between jurisdictions and material legal entities such as regulatory, legal or other restrictions.

Liquidity outflows are modeled across a range of time horizons and currency dimensions and contemplate both market and idiosyncratic stresses. As a result, these internal stress outflow assumptions may differ from the outflow assumptions prescribed in the LCR rule.

Governance

Committees responsible for liquidity governance include the Firmwide Asset Liability Committee ("ALCO") as well as regional ALCOs, the Treasurer Committee, and the CIO, Treasury and Corporate Risk Committee. In addition, the Board Risk Committee reviews and recommends to the Board of Directors, for approval, the Firm's liquidity risk tolerances, liquidity strategy, and liquidity policy. Refer to Firmwide Risk Management on pages 86-89 of the 2023 Form 10-K for further discussion of ALCO and other risk-related committees.