The Bank of New York Mellon Corporation The Bank of New York Mellon



Company-Run Stress Test Dodd-Frank Act Stress Test Results

March 26, 2014

Supervisory Severely Adverse Scenario Dodd-Frank Capital Actions

> 12 CFR Section 252.148 12 CFR Section 252.157

Introduction

The Bank of New York Mellon Corporation ("BNY Mellon") and The Bank of New York Mellon (the "Institutional Bank") are required to conduct company-wide stress tests and disclose a summary of those results pursuant to the requirements of 12 CFR Section 252.148 and 12 CFR Section 252.157, respectively (together, the "Regulations"). Accordingly, we have developed the following disclosure, which contains the information required by the Regulations to be disclosed publicly. The information contained in this disclosure has been prepared in accordance with the Regulations. Any differences in the presentation of information concerning either BNY Mellon or the Institutional Bank contained herein relative to how these firms present such information for other purposes is solely due to our efforts to comply with the Regulations. The information presented herein does not, in any way, reflect changes to our organizational structure, business plans or practices, or strategy. The projections contained here represent hypothetical estimates that involve an economic outcome that is more adverse than expected, and accordingly these estimates are not forecasts of expected losses, revenues, net income before taxes, or capital ratios.

Since the 2008 financial crisis, stress testing has evolved as an important analytical tool for evaluating capital adequacy under adverse conditions. BNY Mellon regularly uses stress tests in its capital planning to measure our exposure to material risks and evaluate the adequacy of capital resources available to absorb potential losses arising from those risks and support operations during adverse economic conditions. We conduct multiple stress tests each year under a range of adverse scenarios.

The Federal Reserve, through section 165(i) of the Dodd-Frank Act, requires each U.S. domiciled top-tier bank holding company with total consolidated assets of \$50 billion or more and certain state member banks to conduct annual stress tests. These annual Dodd-Frank Act stress tests are designed to provide an in-depth view into stressed capital positions under scenarios and capital action assumptions that are provided by the Federal Reserve.

The pro forma capital ratios reflected in this report result from specific assumptions regarding capital actions that are prescribed by the Dodd-Frank Act stress test rule. These standardized capital actions assume dividend payments are maintained at prior levels across the test horizon; while in practice, if a severely adverse economic scenario were to in fact occur, it is highly likely that BNY Mellon would respond with certain capital conservation actions consistent with internal policy and could change planned distributions. The stress test results summarized in this report should not be interpreted as expected or likely outcomes, but rather as a possible result under hypothetical, highly adverse economic conditions.

BNY Mellon's Business Model

BNY Mellon is a Delaware corporation and is a global investments company headquartered in New York, New York, with \$27.6 trillion in assets under custody and/or administration and \$1.6 trillion in assets under management as of Dec. 31, 2013. BNY Mellon divides its businesses into two principal segments, Investment Management and Investment Services. BNY Mellon also maintains an "other" reporting segment, which includes credit-related services, a leasing portfolio, corporate treasury activities (including our investment securities portfolio), certain equity investments, business exits and corporate overhead.

BNY Mellon is dedicated to helping its clients manage and service their financial assets throughout the investment lifecycle. Whether providing financial services for institutions,

corporations or financial investors, BNY Mellon delivers informed investment management and investment services in 35 countries and more than 100 markets. BNY Mellon can act as a single point of contact for clients looking to create, trade, hold, manage, service, distribute or restructure investments.

BNY Mellon's global client base consists of corporations, high-net-worth individuals and families, family offices, charitable gift programs, public funds and government agencies, foundations and endowments; global financial institutions including banks, broker-dealers, asset managers, insurance companies and central banks; financial intermediaries and independent registered investment advisors; and hedge fund managers. BNY Mellon does not engage in mass market consumer lending nor does it have a retail branch network.

BNY Mellon's businesses benefit during periods of global growth in financial assets and from the globalization of the investment process. Over the long term, its financial goals focus on deploying capital to accelerate the long-term growth of the businesses and generating an appropriate return to its shareholders within prudent, responsible, and pragmatic risk parameters. BNY Mellon was designated by the Financial Stability Board ("FSB") as a Global Systemically Important Financial Institutions ("G-SIFI").

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Description of types of risks included in the stress test

When conducting the company-run stress test under the Supervisory Severely Adverse Scenario with Dodd-Frank capital actions, BNY Mellon evaluated and incorporated the principal risks that have been determined to influence it. These risks include operational/business risk, market risk, credit risk, and liquidity risk. The following table presents the primary type of risk typically embedded in on- and off-balance-sheet instruments.

Table 1: Risks of BNY Mellon's On- and Off-balance Sheet Instruments

Risks of our on- and off-balance-sheet instruments			
Assets:			
Interest-bearing deposits with			
banks	credit		
Federal funds sold and securities			
purchased under resale			
agreements	market, credit		
Securities	market, credit		
Trading assets	market, credit		
Loans	credit		
Goodwill	operational/business, market		
Intangible assets	operational/business, market		
Liabilities:			
Deposits	liquidity		
Federal funds purchased and			
securities sold under			
repurchase agreements	liquidity		
Trading liabilities	market, liquidity		
Payables to customers and			
broker-dealers	liquidity		
Commercial paper	liquidity		
Off-balance-sheet instruments:			
Lending commitments	credit, liquidity		
Standby letter of credit	credit, liquidity		
Commercial letters of credit	credit, liquidity		
Securities lending			
indemnifications	market, credit		

<u>Operational Risk.</u> Operational risk is the risk of loss resulting from inadequate or failed internal processes, human factors and systems, breaches of technology and information systems, or from external events. Operational risk also includes fiduciary risk, reputational risk, and the risk of potential legal or regulatory actions. Operational risk is inherent in BNY Mellon's global business activities, and, in the case of an operational event, we could suffer a financial loss as well as damage to our reputation.

<u>Market Risk</u>. Market risk is the risk of loss due to adverse changes in the financial markets. Market risk arises from derivative financial instruments, such as futures, forwards, swaps, and options and other financial instruments including loans, securities, deposits, and other borrowings. BNY Mellon's market risks are primarily interest rate, foreign exchange risk, and equity risk. Market risk particularly impacts our exposures that are marked-to-market such as the securities portfolio, trading book, and equity investments.

<u>Credit Risk</u>. Credit risk is the risk of loss attributable to counterparty or borrower default on obligations to us. Credit risk is resident in the majority of our assets, but BNY Mellon's primary exposure to the credit risk of a counterparty is concentrated in the loan and securities portfolios,

off-balance-sheet exposures such as lending commitments, letters of credit, and securities lending indemnifications.

<u>Liquidity Risk</u>. Liquidity risk is the risk that BNY Mellon cannot meet its cash and collateral obligations at a reasonable cost for both expected and unexpected cash flows, without adversely affecting daily operations or financial conditions. Liquidity risk can arise from cash flow mismatches, market constraints from inability to convert assets to cash, inability to raise cash in the markets, deposit run-off, or contingent liquidity events. Thus, liquidity risk can be inherent in the majority of our balance sheet exposures.

BNY Mellon's annual company-run stress test under the Supervisory Severely Adverse Scenario with Dodd-Frank capital actions contained wide-ranging impacts across multiple risk areas including the principal risk types identified above. To incorporate these risks into our annual stress test, BNY Mellon identified and stressed key risk drivers and assumptions to estimate how losses might be incurred and how an event in one risk may migrate into other areas. The next section discusses BNY Mellon's methodology for translating the Supervisory Severely Adverse Scenario's factors into various financial impacts including expected losses, net income, on- or off-balance sheet, liquidity, leverage, and capital positions. Please refer to BNY Mellon's Annual Report on Form 10-K for the year ended December 31, 2013 for a broader description of the BNY Mellon's capital planning and risk management process.

General description of methodologies

BNY Mellon has forecast projected losses, pre-provision net revenue, provision for loan and lease losses and other factors affecting capital using a series of models and estimation techniques that translate the economic and financial variables in the Supervisory Severely Adverse Scenario to BNY Mellon's losses and revenues.

Occasionally it is necessary to supplement modeled projections with expert judgment where historical data may be inadequate to project loss and revenue estimates or historical relationships may not hold up under forward-looking hypothetical scenarios. In these cases, BNY Mellon ensures consistency of projections with the conditions of the stress test through a cross-functional governance structure and control environment that incorporates multiple levels of review, challenge, and approval.

<u>Provision for loan losses</u>. BNY Mellon has developed a series of models to estimate losses on various types of loans. Loss projection methods are product-specific and link economic variables to credit performance based on historical and expected relationships. The table below identifies major loan types and key assumptions used to derive loss estimates.

Table 2: Credit Portfolio Loss Methodologies and Assumptions

Loan Type	Description of Methodology	Key Assumptions	
First-lien, Closed End Domestic Residential Mortgages	 Statistical model estimated using loan-level data on mortgage characteristics and performance supplemented by macroeconomic indicators and house price data 	Macroeconomic factors such as: Housing Price Index (HPI) Unemployment rate Mortgage rates	
HELOCs	Loss given default (LGD) approach based on historical relationships between macroeconomic factors and non-accrual loan balance data	Macroeconomic factors such as: Housing Price Index (HPI) Unemployment rate	
Domestic Commercial Real Estate Loans	Estimated loss model based on correlation of CRE net charge-offs, internal CRE loans rating migration, and estimated loss to macroeconomic factors	Macroeconomic factors such as: Unemployment GDP Commercial Real Estate Prices Mortgage rates	
Corporate Wholesale & Other*	 Expected Loss (EL) model relying on probability of default (PD), loss given default (LGD), and usage given default (UGD) 	Migration analysis including both default and non-default predictions based on historical relationships	

^{*}C&I, loans to depositories and other financial institutions, loans for purchasing or carrying securities, overdrafts, and leases

<u>Realized gains/losses on securities</u>. BNY Mellon uses instrument-specific methodologies to forecast other-than-temporary impairment ("OTTI") on its securities investment portfolio. These securities are divided into two separate and distinct classes: securities we intend to hold to maturity are held to maturity ("HTM"), and all other securities are classified as available-for-sale ("AFS"). Loss estimates are recognized in accordance with BNY Mellon's established accounting policy. The table below identifies major security types and key assumptions used to derive loss estimates.

Table 3: Securities Portfolio OTTI Methodologies and Assumptions

Security Type	Description of Methodology	Key Assumptions
Domestic Non- Agency RMBS	Statistical model estimated using loan-level data on mortgage characteristics and performance supplemented by macroeconomic indicators and house price data	Collateral type and characteristics Macroeconomic factors such as: Housing Price Index (HPI) Unemployment rate Mortgage rates
Foreign RMBS	 Region-specific econometrics models to project delinquency, default, and prepayment based on historical relationships that influence cash flow projections 	 Collateral type and characteristics Macroeconomic factors such as: Housing Price Index (HPI) Unemployment rate Interest rates
CMBS	Deterministic loan-level loss and cash flow projections based on underlying loan/collateral deal characteristics	Loan details Property type and characteristics
Consumer ABS	Loan-level prepayment/default/delinquency/loss severity models driven by underlying deal characteristics	Collateral type and characteristics Macroeconomic factors such as: Unemployment rate Interest rates
Bond Portfolio*	Probability of default (PD)/loss given default (LGD) approach	Product-specific ratings transition analysis
CLOs	Bottom-up cash flow modeling approach in which performance is projected at the underlying collateral level	Underlying collateral metrics including: Prepayment rate Default rate Severity rate

^{*}Corporate bonds, municipal bonds, sovereign bonds, and covered bonds

<u>Operational losses.</u> In addition, BNY Mellon used a methodology to estimate operational losses that incorporates both internal and external data. We forecast both litigation and non-litigation operational losses under separate methodologies.

For litigation loss estimates, BNY Mellon's forecasting methodology relies on a combination of high frequency, low severity cases and low frequency, high severity cases that draw from historical experience as well as potential losses associated with new litigation that may arise over the normal course of business (within the projection horizon).

<u>Pre-provision net revenue.</u> Consistent with the balance sheet and exposure assumptions used for loss estimation, BNY Mellon developed a model to project all key elements of pre-provision net revenue including net interest income, non-interest income, and non-interest expense.

PPNR Component	Description of Methodology	Key Assumptions	
Net Interest Income	 Current and forecasted balance sheet positions and cash flows are modeled by product type and reflect loss projections estimates Cash flow projections for financial instruments with embedded optionality rely on a stochastic modeling process while those without rely on a static cash flow methodology 	 Future balance sheet growth Runoff and pricing assumptions Macroeconomic factors such as interest rates 	
Non-Interest Revenue	 Total non-interest revenue projection is comprised of a series of granular projection models for individual revenue lines developed using historical data. A majority are regression models tied to the external economic factors and used to describe the forward scenarios. In cases where regression models were insufficiently robust, historical averages were employed. 	 Asset and trading volumes Growth rates Macroeconomic factors, such as: GDP Equity indices Volatility 	
Non-Interest Expense	 Variable expenses were modeled based on historical expense to non-interest revenue relationships Distinct Board-approved initiatives identified by management are additionally layered into the projections over the projection horizon 	Non-interest revenue projections Growth rates Headcount	

<u>Capital position.</u> BNY Mellon's forecasting process employed a set of methodologies to layer in the effect of losses, pre-provision net revenue, and provision for loan and lease losses on pro forma capital levels and ratios.

Future balance sheet growth, runoff and pricing assumptions were derived from business line forecasts, historical trends, market dynamics, and balance sheet strategy input from senior management and are reflective of the economic and interest rate environments being analyzed under the Supervisory Severely Adverse Scenario. BNY Mellon forecasts risk-weighted assets ("RWA") based on the changes in its individual asset components in each quarter of the projection horizon. Total RWA was projected using existing Basel I standards through 2014, and using Basel III standards beginning Q1 2015 under the standardized approach. Market risk was forecasted based on Basel II.5 rules.

BNY Mellon's Supervisory Severely Adverse Scenario post-stress capital position reflects regulatory capital inclusive of stress losses and PPNR. Additionally, BNY Mellon's Supervisory Severely Adverse Scenario post-stress capital includes a set of capital actions based on historical capital distributions, including common stock dividends, contracted payments, and a general assumption of no redemptions, repurchases, or issuances of capital instruments. These projections do not reflect BNY Mellon's currently planned capital actions.

<u>Counterparty default.</u> This year BNY Mellon was required to incorporate a counterparty default scenario component into the Supervisory Severely Adverse Scenario to estimate and report the potential losses and related effects on capital associated with the instantaneous and unexpected default of its largest counterparty across its derivatives, securities lending, and repurchase/reverse repurchase agreements. The Federal Reserve has instructed firms that this largest counterparty should be determined by net stressed losses, which are computed by revaluing exposures and collateral using specified asset price shocks stipulated by the Federal Reserve's global market shock scenario. In calculating the losses associated with the counterparty default scenario component, BHCs must assume a recovery rate of 10 percent, reflecting significant uncertainty at the time given highly distressed market conditions.

Explanation of the most significant causes for changes in regulatory capital

Throughout the forecast period, BNY Mellon continues to generate increases in regulatory and tier 1 common capital. Declines in BNY Mellon's regulatory capital ratios and tier 1 common ratio early in the projection horizon were driven by losses arising from the counterparty default scenario, provision expense associated with credit portfolio deterioration, impairments within the securities portfolio, operational losses (including litigation), and trading book losses.

However, to offset losses that initially generated declines in BNY Mellon's regulatory capital ratios and tier 1 common ratio, BNY Mellon's fee-based business model permitted the generation of capital over the course of the projection horizon even in the stressed environment.

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BNY Mellon - Tables of Statistical Results.

COMPANY-RUN RESULTS

Dodd-Frank Act Stress Testing Results

Projected Stressed Capital Ratios BNY Mellon Estimates in the Supervisory Severely Adverse Scenario

The capital ratios are calculated using capital action assumptions provided within the Dodd-Frank Act stress testing rule. These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of expected losses, revenues, net income before taxes, or capital ratios. The minimum capital ratio presented is for period Q4 2013 to Q4 2015.

Projected stressed capital ratios through Q4 2015				
	Actual Q3 2013	, 10 tala.	Stressed capita	al ratios¹
		Ending	Minimum	
Tier 1 common ratio (%)	14.1	14.6	12.9	
Common equity tier 1 capital ratio (%) ²	n/a	11.0	10.3	
Tier 1 risk-based capital ratio (%)	15.8	11.9	11.2	
Total risk-based capital ratio (%)	16.8	12.0	11.5	
Tier 1 leverage ratio (%)	5.6	5.7	5.1	

- 1. The capital ratios are calculated using capital action assumptions provided within the Dodd-Frank Act stress testing rule. These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of expected losses, revenues, net income before taxes, or capital ratios. The minimum capital ratio presented is for the period Q4 2013 to Q4 2015.
- 2. Advanced approaches bank holding companies (BHCs) are subject to the common equity tier 1 ratio for each quarter of 2014. All bank holding companies are subject to the common equity tier 1 ratio for each quarter of 2015. For purposes of this stress test cycle, an advanced approaches BHC includes any BHC that has consolidated assets greater than or equal to \$250 billion or total consolidated on-balance sheet foreign exposure of at least \$10 billion as of December 31, 2013. See 12 CFR 217.100(b)(1); 12 CFR part 225, appendix G, section 1(b). Other BHCs include any BHC that is subject to 12 CFR 225.8 and is not an advanced approaches BHC.

Projected loan losses, by type of loan, Q4 2013-Q4 2015			
	Billions of dollars	Portfolio loss rates (%) ¹	
Loan losses	\$0.4	0.8%	
First-lien mortgages, domestic	\$0.1	1.8%	
Junior liens and HELOCs, domestic	\$0.0	0.0%	
Commercial and industrial	\$0.1	2.9%	
Commercial real estate, domestic	\$0.1	6.4%	
Credit cards	\$0.0	0.0%	
Other consumer	\$0.0	0.4%	
Other loans	\$0.1	0.3%	

^{1.} Average loan balances used to calculate portfolio loss rates exclude loans held for sale and loans held for investment under the fair-value option, and are calculated over nine quarters.

Actual Q3 2013 and projected Q4 2015 risk-weighted assets			
		Projected Q4 2015	
	Actual		Basel III
(billions of dollars) ¹		Current general	

^{1.} For each quarter in 2014, risk-weighted assets are calculated using the current general risk-based capital approach. For each quarter in 2015, risk-weighted assets are calculated under the Basel III standardized capital risk-based approach, except for the tier 1 common ratio which uses the general risk-based capital approach for all quarters.

Projected losses, revenue, and net income before taxes through Q4 2015			
	Billions of	Percent of average assets ¹	
Pre-provision net revenue ²	\$3.8	1.1%	
Other revenue ³	\$0.0	0.0%	
less			
Provisions	\$0.7	0.2%	
Realized losses/(gains) on securities (AFS/HTM)	\$0.5	0.1%	
Trading and counterparty losses ⁴	\$1.4	0.4%	
Other losses/gains ⁵	\$0.0	0.0%	
equals			
Net income before taxes	\$1.2	0.4%	
Memo items			
Other comprehensive income ⁶	(\$0.6)	0.2%	
Other effects on capital	Q4 2014	Q4 2015	
AOCI included in capital (billions of dollars) ⁷	(\$1.7)	(\$1.5)	

- 1. Average assets is the nine-quarter average of total assets.
- 2. Pre-provision net revenue includes losses from operational-risk events, mortgage repurchase expenses, and other real estate owned (OREO) costs.
- 3. Other revenue includes one-time income and (expense) items not included in pre-provision net revenue.
- 4. Trading and counterparty losses include mark-to-market and credit valuation adjustments (CVA) losses and losses arising from the counterparty default scenario component applied to derivatives, securities lending, and repurchase agreement activities.
- 5. Other losses/gains includes projected change in fair value of loans held for sale and loans held for investment measured under the fair-value option, and goodwill impairment losses.
- 6. Other comprehensive income is only calculated for advanced approaches BHCs, as only those BHCs include accumulated other comprehensive income (AOCI) in calculations of regulatory capital. Other comprehensive income includes incremental unrealized losses/gains on AFS securities and on any HTM securities that have experienced other than temporary impairment.
- 7. For advanced approaches BHCs, 20 percent of AOCI is included in capital calculations for 2014 and 40 percent of AOCI is included in capital calculations for 2015. For the purposes of this stress test cycle, non-advanced approaches BHCs are assumed to opt-out of including AOCI in their capital calculations.

Institutional Bank - Summary of Results.

When conducting the company-run stress test under the Supervisory Severely Adverse Scenario and Dodd-Frank capital actions, the Institutional Bank evaluated the types of risks and utilized the same methodologies as described above in the discussion concerning BNY Mellon.

Throughout the forecast period, BNY Mellon continues to generate increases in regulatory and tier 1 common capital. Declines in BNY Mellon's regulatory capital ratios and tier 1 common ratio early in the projection horizon were driven by impairments within the securities portfolio, additional provision expense associated with credit portfolio deterioration, operational losses (including litigation), and trading book losses.

However, to offset losses that initially generated declines in BNY Mellon's regulatory capital ratios and tier 1 common ratio, the Institutional Bank's fee-based business model permitted the generation of capital over the course of the projection horizon even in the stressed environment.

Institutional Bank - Table of Statistical Results.

Institutional Bank: Supervisory Severely Adverse Scenario

Projected stressed capital ratios through Q4 2015				
	Actual Q3 2013	Stressed capital ratio	os¹	
		Ending	Minimum	
Tier 1 common ratio (%)	13.4	11.8	11.8	
Common equity tier 1 capital ratio (%) ²	n/a	7.8	7.8	
Tier 1 risk-based capital ratio (%)	14.3	8.1	8.1	
Total risk-based capital ratio (%)	14.8	8.2	8.2	
Tier 1 leverage ratio (%)	5.4	4.4	4.4	

- 1. The capital ratios are calculated using capital action assumptions provided within the Dodd-Frank Act stress testing rule. These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of expected losses, revenues, net income before taxes, or capital ratios. The minimum capital ratio presented is for the period Q4 2013 to Q4 2015.
- 2. Advanced approaches organizations are subject to the common equity tier 1 ratio for each quarter of 2014. All organizations are subject to the common equity tier 1 ratio for each quarter of 2015. Please refer to footnote 2 on page 10.

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Additional information related to BNY Mellon is contained in BNY Mellon's reports filed with the Securities and Exchange Commission (the "SEC"), including the Annual Report on Form 10-K for the year ended December 31, 2013 (including the Annual Report to Shareholders (the "Annual Report") included with the 10-K) (the "2013 Form 10-K"), the Quarterly Reports on Form 10-Q and the Current Reports on Form 8-K (each, a "'34 Act Report"). These periodic '34 Act Reports can be viewed, as they become available, on the SEC's website at www.sec.gov and at www.bnymellon.com. Information contained in '34 Act Reports that BNY Mellon furnishes to the SEC subsequent to the date of the 2013 Form 10-K may modify, update and supersede the information contained in the 2013 Form 10-K and provided in this document.

This document and BNY Mellon's '34 Act Reports referred to above contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "estimate," "forecast," "project," "anticipate," "confident," "target," "expect," "intend," "seek," "believe," "plan," "goal," "could," "should," "may," "will," "strategy," "opportunities," "trends" and words of similar meaning, signify forward-looking statements. These statements are based on the current beliefs and expectations of BNY Mellon's management and are subject to significant risks and uncertainties that are subject to change based on various important factors (some of which are beyond BNY Mellon's control). Actual results may differ materially from those set forth in the forward-looking statements. Factors that could cause BNY Mellon's actual results to differ materially from those described in the forward-looking statements can be found in the "Risk Factors" section of the 2013 Form 10-K and other subsequent '34 Act Reports filed with the SEC. All forward-looking statements speak only as of the date on which such statements are made and BNY Mellon does not undertake to update the forward-looking statements to reflect the impact of circumstances or events that may arise after the date of the forward-looking statements.