BMO Financial Group

BMO Financial Corp.

2016 Mid-Cycle Dodd-Frank Act Stress Test

Severely Adverse Scenario Results Disclosure

October 19, 2016

Overview

BMO Financial Corp. (BFC), a U.S. Intermediate Holding Company (IHC), is a wholly-owned subsidiary of Bank of Montreal (BMO) and is regulated by the Board of Governors of the Federal Reserve System (FRB or "the Fed").

As an intermediate holding company with total consolidated assets of $50 billion or more, BFC is subject to the **Supervisory and Company-Run Stress Test Requirements for Covered Companies**[1] rule issued by the FRB to implement the stress test requirements established in section 165(i)(1) and (2) of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act").

The 2016 Dodd-Frank Act company-run mid-cycle stress test results presented in this report estimate the impact of a hypothetical severely adverse macroeconomic scenario (Severely Adverse scenario) selected by BFC on its capital position over a nine-quarter forecast horizon. The Severely Adverse scenario is described in additional detail below.

BFC performed its internal stress tests using its own models, practices, methodologies and assumptions to project pre-provision net revenue (PPNR), provisions, losses and capital ratios under the Severely Adverse scenario except in those cases where practices, methodologies and assumptions were specifically prescribed by rules, instructions or guidance published by the FRB.[2]

In addition, companies are required to assume a uniform set of conditions regarding capital actions over the forecast horizon to enable comparison of results across institutions and neutralize the effect of company-specific assumptions regarding capital actions. Under this requirement, BFC must calculate its pro-forma capital ratios using the following factors and assumptions regarding its capital actions over the forecast horizon for the Severely Adverse scenario:

1. For the initial quarter of the forecast horizon (Q3 2016), take into account actual capital actions taken throughout the quarter;
2. For each of the subsequent quarters (Q4 2016 through Q3 2018), include in the projection of capital:
    i. Common stock dividends equal to the quarterly average dollar amount of common stock dividends that the company paid in the previous year (i.e., the initial quarter of the forecast horizon and the preceding three calendar quarters);
    ii. Payments on any other instrument that is eligible for inclusion in the numerator of a regulatory capital ratio equal to the stated dividend, interest or principal due on such instrument during the quarter;
    iii. An assumption of no redemption or repurchase of any capital instrument that is eligible for inclusion in the numerator of a regulatory capital ratio; and
    iv. An assumption of no issuances of common stock or preferred stock, except for issuances related to expensed employee stock compensation or in connection with a planned merger or acquisition.

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[1] 'Supervisory and Company-Run Stress Test Requirements for Covered Companies' Final Rule, 12 C.F.R Part 252

[2] 'Comprehensive Capital Analysis and Review 2016 Summary Instructions' published by FRB on January 28, 2016 and 'Dodd-Frank Act Mid-Cycle Stress Tests 2013 Summary Instructions' published by FRB on May 13, 2013

In actual practice, if a severely adverse scenario were to occur, BFC would take capital and other management actions mandated by its internal policies and which are necessary or appropriate to respond to such stress.

BFC is well-capitalized with a strong, pre-stress actual Basel III Common Equity Tier 1 (CET1) ratio of 12.0% as of June 30, 2016. As depicted by the results of the Severely Adverse scenario presented below, BFC maintains strong capital levels, with a minimum CET1 ratio of 9.3% over the forecast horizon, which is considerably higher than the applicable Basel III regulatory well-capitalized requirement of 6.5% and minimum value of 4.5%. BFC maintains pro-forma regulatory capital ratios that are higher than the regulatory minimums throughout the forecast horizon despite reduced pre-provision net revenue and higher losses.

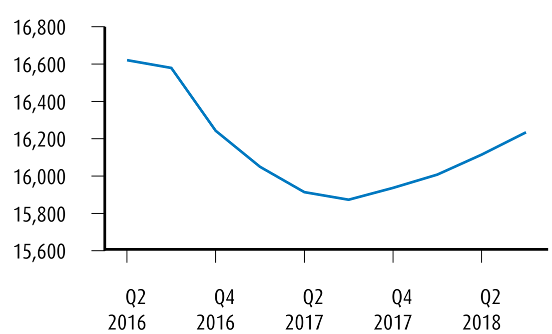
Severely Adverse Scenario

Scenario Overview

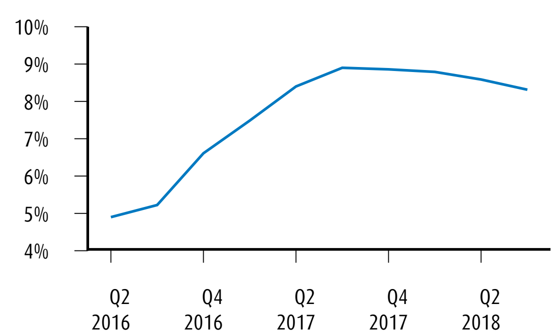
The Severely Adverse scenario is driven primarily by dislocations in the European financial system, instigated by a sharp deterioration in political and economic conditions. These European dislocations have serious implications for U.S. banking institutions as counterparty risk increases dramatically, evidenced by a spike in the LIBOR rate. The BBB spread reaches a peak of 6.3% in the fourth quarter of 2016 and shows persistence as the market attempts to recover. The Fed reduces the policy rate back to near 0%, while embarking on an aggressive quantitative easing program. This series of events leads to a five-quarter recession with a peak-to-trough GDP decline of 4.5%, while the unemployment rate increases by a cumulative 400 basis points to a level of 8.9% by the third quarter of 2017. Housing prices and asset markets are severely impacted, with home prices experiencing a 21% decline, commercial real estate prices falling 36%, and equity prices dropping 44%. Bond yields fall as expectations of inflation wane; the 10-year Treasury rallies below 0.4%, where it remains for two quarters. The yield curve compresses and some short-term maturities slip into negative territory. Commodity prices experience deeper cyclical lows, as evidenced by averages in the WTI oil price below $22 through most of 2017, which exerts additional stress on the already-sensitive oil and gas and mining sectors. Exporters and manufacturers are left in an uncompetitive position due to a strengthening dollar. Sagging global demand and uncompetitive pricing lead to dramatic capacity cuts and numerous plant closures. The Midwest is particularly affected by these outcomes given the region's greater weighting in the manufacturing, wholesale and transportations sectors. The combined region of Minnesota, Indiana, Illinois and Wisconsin experiences a peak-to-trough GDP decline of over 6.5%, and unemployment rates spike well above the national benchmark.

The charts below provide a view of the path specific U.S. macroeconomic variables, which are drivers of the estimation process, follow through the forecast horizon.

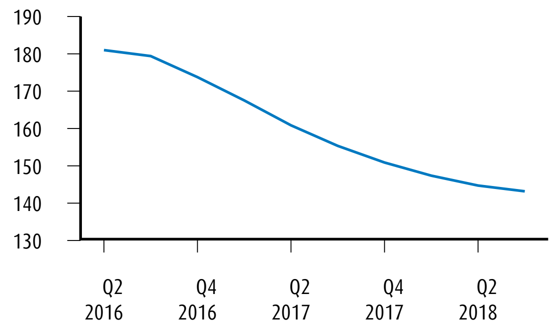
U.S. Real GDP



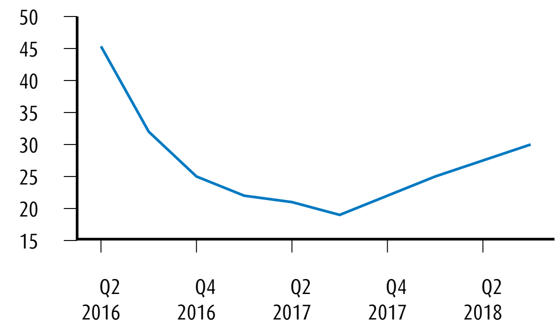
U.S. Unemployment Rate



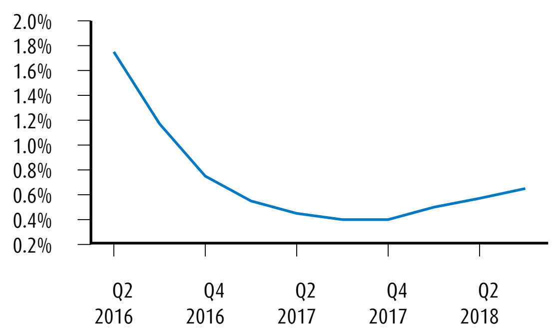
Case-Shiller House Price Index



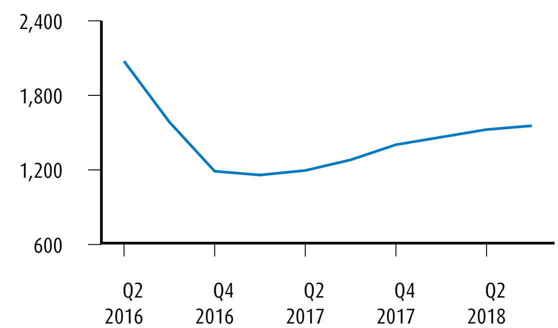
West Texas Intermediate Prices



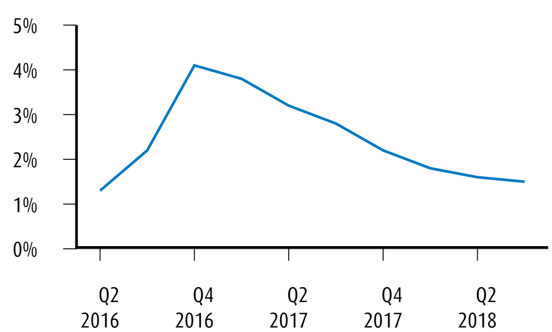
10-Year Treasury Yields



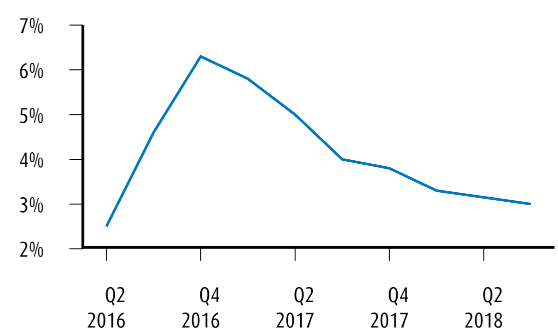
S&P 500 Index



Corporate Risk Spread, A-Rated



Corporate Risk Spread, BBB-Rated



Severely Adverse Scenario Estimates

BFC maintains strong regulatory capital ratios throughout the forecast horizon from Q3 2016 through Q3 2018. The minimum and ending values are depicted below. Also shown below are risk-weighted asset projections as well as loan loss and income statement forecasts throughout the scenario.

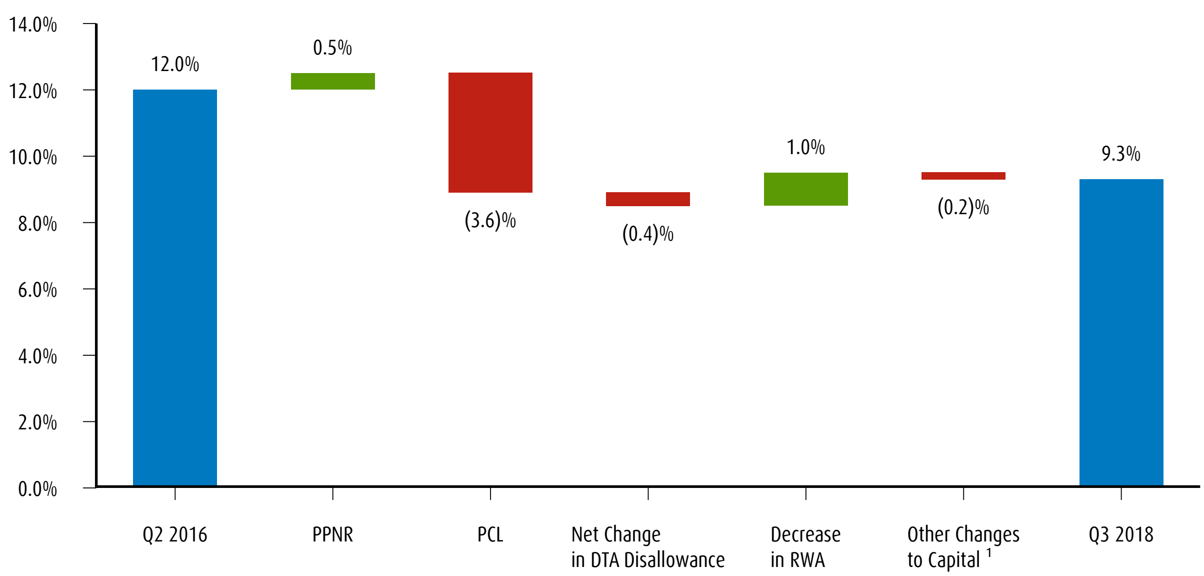
BFC projected stressed capital ratios through Q3 2018			
Ratio	Actual Q2 2016	Stressed capital ratios [1]	
		Ending	Minimum
Common equity Tier 1 capital ratio	12.0%	9.3%	9.3%
Tier 1 risk-based capital ratio	12.0%	9.8%	9.8%
Total risk-based capital ratio	14.8%	13.3%	13.3%
Tier 1 leverage ratio	9.0%	8.0%	8.0%

[1] The pro forma stressed capital ratios are calculated using DFAST capital actions and assumptions as described above. These projections represent hypothetical estimates under severely adverse economic conditions specified in the Severely Adverse scenario. The minimum capital ratios presented are for the period Q3 2016 through Q3 2018.

BFC actual Q2 2016 and projected Q3 2018 risk-weighted assets		
Billions of dollars	Actual Q2 2016	Projected Q3 2018
BFC Risk-Weighted Assets	93.9	84.2

As depicted in the chart below, the decline in capital ratios from actual Q2 2016 levels to the minimums projected in the hypothetical Severely Adverse scenario primarily reflects the impacts of higher provisions for credit losses (PCL) and higher disallowed deferred tax assets (DTA) generated due to net operating losses. These impacts are partly offset by lower risk-weighted asset (RWA) levels.

Key Drivers of BFC's Pro Forma Common Equity Tier 1 Capital Ratio



[1] Other changes to capital include changes in disallowed intangibles net of related deferred tax liabilities as well as other miscellaneous adjustments.

BFC projected loan losses, by type of loan, from Q3 2016 through Q3 2018		
Loan Type	**Billions of dollars**	**Portfolio loss rates (%) [1]**
Total Loan Losses	2.8	4.5%
First-lien mortgages	0.2	2.6%
Junior liens and HELOCs	0.2	6.2%
Commercial and industrial	1.2	4.9%
Commercial real estate [2]	0.7	6.8%
Credit cards	0.1	13.7%
Other consumer	0.1	2.1%
Other Loans	0.4	3.5%

[1] Average loan balances used to calculate portfolio loss rates exclude loans held for sale and are calculated over nine quarters.

[2] Commercial real estate loans include loans secured by farmland.

BFC projected losses, revenue, and net income before taxes from Q3 2016 through Q3 2018		
Item	**Billions of dollars**	**Percentage of average assets**
Pre-provision net revenue [1]	0.5	0.5%
Other revenue	—	—%
Less		
Provisions	3.4	2.9%
Realized losses/(gains) on securities (AFS/HTM)	0.0	0.0%
Trading and counterparty losses/(gains)	0.0	0.0%
Other losses/(gains)	—	—%
Equals		
Net income/(loss) before taxes	(2.9)	(2.5)%

[1] Pre-provision net revenue is comprised of revenues less expenses, including mortgage repurchase expenses and other real estate owned (OREO) costs, as well as losses from operational risk events.

Material Risks Captured in the Stress Test

BFC's Capital Adequacy Process (CAP) is grounded in the processes used to identify, understand and ultimately manage the risks arising from its business model and strategies. As part of BFC's CAP, a broad spectrum of risks are evaluated and stressed, including credit and counterparty risk, market risk, operational risk and other applicable risks; these risks are described below.

- **Credit and Counterparty Risk:** Credit and counterparty risk is the potential for loss due to the failure of a borrower, endorser, guarantor or counterparty to repay a loan or honor another predetermined financial obligation. Credit and counterparty risk underlies every lending activity that BFC enters into, and also arises in the transacting of trading and other capital markets products and the holding of investment securities.

- **Market Risk:** Market risk is the potential for adverse changes in the value of assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity and commodity prices and their implied volatilities, and credit spreads, and includes the risk of credit migration and default in our trading book. BFC incurs market risk in its trading and underwriting activities and structural banking activities.

- **Operational Risk:** Operational risk is the potential for loss resulting from inadequate or failed internal processes or systems, human interactions or external events.

- **Other Risks:** Other material risk types evaluated under the CAP and captured in the stress test include liquidity and funding risk, model risk, business risk, reputation risk and strategic risk.

Many of BFC's material risks, including credit, market and operational risk, are driven by or correlated with changing macroeconomic conditions, and thus are stressed under the Severely Adverse scenario using the methodologies described below.

Stress Testing Methodologies

BFC's stress testing methodologies are focused on defining the relationship between macroeconomic variables and business volumes, revenues and losses in order to develop pro-forma financial statements and estimate impact on capital availability. Key outputs from these processes are pro-forma balance sheets and income statements, which are used to develop risk-weighted assets, average assets for leverage purposes and capital projections in order to estimate stressed regulatory capital ratios. BFC uses models, quantitative and qualitative methodologies, and management judgment, where applicable, to produce a comprehensive projection of business performance under a hypothetical severe stress scenario. All projected results are reviewed and challenged by teams of BFC subject matter experts, and senior cross-functional and multi-disciplinary management committees, as well as by the Capital Committee of the BFC Board of Directors.

The specific methodologies employed are described below.

Credit and Other Losses

BFC's loss estimation processes are supported by well-established risk measurement frameworks and complemented by robust governance, including independent model validation and effective challenge by business and risk management professionals. Results are benchmarked against key internal and external metrics of performance.

Specific to credit risk, loss estimation for each scenario is forecasted by Probability of Default (PD) and Loss Given Default (LGD) stress models that are driven by scenario-specific inputs, exposure and borrower attributes, and balance information. Commercial and Consumer net charge-offs are primarily estimated using quantitative models that forecast stress PD, stress LGD and exposure at default, as well as credit quality changes within the performing portfolios. Commercial and Consumer models are calibrated to BFC's historical loss experience and use risk characteristics of loan segments and exposures to derive results under the Severely Adverse scenario.

Operational losses are primarily estimated using a combination of a macroeconomic regression model and a loss distribution approach model. The models forecast losses using the history of operational losses, which includes legal settlements, ongoing fees and reserves. This modeled stress result uses macroeconomic stress and a specific percentile level to account for increased potential operational losses in periods of stress. Certain operational losses are estimated using a qualitative approach.

Trading losses are estimated using market risk stress testing models. Other than temporary impairment on securities and equity investments is estimated at an individual investment level, as applicable.

Pre-Provision Net Revenue

BFC uses quantitative and qualitative methodologies based on applicable macroeconomic variables to estimate net interest income, non-interest revenue and non-interest expense. Net interest income components are estimated using the projected balance sheet, non-performing loan migration, net charge-offs, purchase accounting and non-contractual net interest income. Non-interest revenue and non-interest expense are estimated utilizing historical experience, expert judgment and quantitative approaches.

While a majority of the categories are quantitatively modeled, certain categories are judgmentally derived.

Provision for Loan and Lease Losses

BFC utilizes the loss estimates and credit quality changes forecasted by its methodologies along with a well established qualitative general reserve framework to quantify the allowance for loan and lease losses. The provisions for loan and lease losses are appropriately estimated to absorb quarterly losses through the forecast horizon and beyond.

Capital Position

The impact of estimated pre-provision net revenue and losses, changes in asset levels, permitted capital and other management actions and changes in risk-weighted assets are used to estimate BFC's capital position. Risk-weighted assets, average assets for leverage purposes and regulatory capital are calculated based on the Basel III methodology for non-advanced approaches institutions throughout the forecast horizon.

The Mid-Cycle Dodd-Frank Act company-run stress test results presented in this report (Stress Test Results) have been prepared in accordance with U.S. GAAP. The Stress Test Results present certain projected financial measures for BFC under the hypothetical economic and market scenario and assumptions designed by BFC. The Stress Test Results are not forecasts of actual financial results for BFC. Investors in securities issued by Bank of Montreal and its affiliates should not rely on the Stress Test Results as being indicative of expected future results.