



Capital One Financial Corporation

Dodd-Frank Act Company-Run Stress Test Disclosures

October 23, 2018

Explanatory Note

Section 165 of the Dodd Frank Wall Street Reform and Consumer Protection Act of 2010 (“Dodd-Frank Act”) requires that certain bank holding companies, including Capital One Financial Corporation (“Capital One”), conduct a stress test twice per year to assess the potential impact of certain scenarios on the consolidated earnings, losses, and capital of each bank holding company (“BHC”), taking into account its current condition, risks, exposures, strategies and activities.

Capital One conducted stress tests in the third quarter of 2018 using actual performance through the second quarter of 2018 and information available at that time. The Dodd-Frank Act also requires that Capital One disclose a summary of the stress test results under Capital One's Severely Adverse Scenario. Capital One's Severely Adverse Scenario represents a hypothetical economic situation which includes assumptions of economic worsening that are at least as severe as the economic conditions experienced in the 2008 recession. The summary of Capital One's results must include estimates of the aggregate impact of the stressed economic scenario on certain financial metrics over the nine-quarter planning horizon. Capital One must provide estimates of its regulatory capital ratios under the Basel III Standardized Approach framework. For additional information regarding the Dodd-Frank Act and U.S. capital rules and their impact on Capital One, see “Part I—Item 1. Business—Supervision and Regulation” of our Annual Report on Form 10-K for the year ended December 31, 2017.

Certain statements and estimates below may be forward-looking, including those that discuss, among other things: loss projections, revenues, income, capital measures, accruals for litigation and other claims against Capital One, future financial and operating results, Capital One's plans, objectives, expectations and intentions, and the assumptions that underlie these matters. Capital One cautions readers that the results in the summary below are not forecasts, predictions of future performance, or measures of its solvency; actual results could differ materially from those contained in this summary. In addition, these results do not represent Capital One's current expectations regarding future results of operations or financial condition. They are based on hypothetical scenarios and other assumptions used for the sole purpose of conducting the required stress tests, and Capital One makes no assurances or predictions about the likelihood of any of these scenarios or assumptions actually occurring. Capital One does not undertake any obligation to update or revise any of the information contained herein whether as a result of new information, future events, or otherwise.

The stress test results below are expected to differ from the stress test results produced by the Federal Reserve in its annual Comprehensive Capital Analysis and Review (“CCAR”) process due to differences in methodologies and assumptions used to produce the results. Refer to the section below entitled “*Considerations in Assessing our DFAST Projections*” for more information.

Scenario Description

Capital One's Severely Adverse Scenario assumes significant deterioration in economic conditions from current levels, resulting in large reductions in employment, home prices and gross domestic product, among other factors. Under this scenario, the U.S. is assumed to fall into a severe recession, with the unemployment rate increasing by approximately six percentage points to a peak of 10.0% in the second quarter of 2020 before improving modestly to 9.8% by the end of the stress horizon (Q3 2020). Our Severely Adverse Scenario also projects a significant drop in home prices. Home prices are assumed to decline approximately 23% from the beginning level of the stress test to a stress horizon low point in the second quarter of 2020, while commercial real estate prices decline by approximately 31% from the start to their trough.

In addition to the adverse economic assumptions reflected in our Severely Adverse Scenario, we have incorporated the impact of other risks in our projections, including the risk of elevated levels of operational losses. While these risks are not necessarily correlated with the economic conditions reflected in our Severely Adverse Scenario, we assume that they could manifest in an environment generally characterized by the types of conditions described in the scenario. Accordingly, we included the impact of these risks in our Severely Adverse Scenario concurrent with the impacts assumed to result as a direct consequence of the stressed economic environment.

Overview of Stress Test Methodology and Approach

Our stress test methodology considers a broad range of potential stresses to our balance sheet and capital levels, including potential impacts to our interest rate risk position, balance sheet composition, levels of pre-provision net revenue (“PPNR”), charge-offs, allowance for loan and lease losses, and tax. The stress analysis and underlying assumptions are informed by a number of factors, including the performance we have observed in our portfolios through prior actual stress periods, including the 2008 recession.

In our Severely Adverse Scenario, the largest impact to our capital ratios comes from changes in credit performance and the corresponding impact to our disallowed deferred tax asset (“DTA”) position (inclusive of the reforms enacted as a part of the Tax Act¹). For our credit card and auto loan portfolios, we project stressed losses using account-level econometric models, which incorporate Metropolitan Statistical Area (“MSA”) level variables. In our commercial portfolios, most of our loss modeling estimates the impact of this stress scenario at the borrower-level, capturing the effects of varying loan characteristics and collateral positions, among other factors. In select portfolios, we use more aggregated economic forecasting approaches that incorporate the specific macro-drivers relevant to each portfolio, including customer and relationship-level attributes.

Once credit has been modeled, we translate our overall credit outlook into projected allowance for loan and lease loss levels for each quarter. We also use our stressed views of credit losses to estimate second order impacts of credit worsening, such as the increase in operating costs related to collections and other loss-mitigation activities, the impact on finance charge and other fees (assessments, reversals and reserves), and the reduction in future revenue due to the inevitable reduction in outstanding balances from higher losses. Our estimates of fees and operating costs are based on historical data, modified as needed to reflect changes due to new legislation, regulations, or business practices.

We model PPNR based on the expected performance of our various businesses to estimate the impact our Severely Adverse Scenario would have on our overall financial performance. The projected impacts are based on the characteristics of each asset and liability class and the related support costs for new originations, ongoing management, and the required underlying infrastructure for each business. Our revenue modeling is divided into net interest income and non-interest income, and our non-interest expense modeling is split between operating and marketing expenses.

In addition to estimating the potential income statement impact of our Severely Adverse Scenario, we also capture the projected impact of the stressed environment on our balance sheet size and composition. The three main factors impacting our loan balance projections are: (i) the impact to existing loan balances from higher charge-offs; (ii) the impact to growth in loan balances due to changes in demand; and (iii) the impact to loan growth that results from fewer lending opportunities meeting our profitability and resilience requirements (as our models and underwriting scorecards systematically incorporate leading credit indicators to reflect the worsening credit conditions in the financial projections used in underwriting). As we have observed in prior stress periods, these three factors have the natural result of quickly reducing the size of our combined loan portfolio.

Additionally, because of the high volume of new originations required to maintain and grow our credit card portfolio balances, we incur much higher marketing costs as a percent of risk-weighted assets than most banks subject to stress testing under the Dodd-Frank Act. This distinction is important to note because these costs naturally drop in a worsening credit environment, as our underwriting models are recalibrated to the environment resulting in fewer lending opportunities and less marketing expense.

The approach we use to capture the projected impact of the stressed environment on our deposit balances is consistent with our approach to loan balances. The three main factors impacting our deposit balance projections are: (i) the impact to new and existing deposit balances due to changes in the interest rate environment; (ii) the impact to growth in deposit balances due to changes in demand; and (iii) the impact to deposit growth from changes in our relative pricing due to changes in our projected loan-to-deposit ratio. These changes in deposit balances in the stressed environment are combined with changes in rate paid to estimate the impact to our income statement, including net interest income and net interest expense.

⁽¹⁾ “Tax Act” refers to the Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018 enacted on December 22, 2017.

Results of Capital One Internal Modeling in the Capital One's Severely Adverse Scenario under the Dodd-Frank Act Stress Testing ("DFAST") Rules

Table 1.1: Actual Q2 2018, the regulatory minimum capital adequacy ratios and Projected Stressed Capital Ratios through Q3 2020 under the DFAST rules in Capital One's Severely Adverse Scenario⁽¹⁾

	Actual	Stressed Ratios ⁽²⁾		Regulatory
	Q2 2018	Q3 2020	Minimum	Minimum Capital Adequacy
Capital One Financial Corp:				
Common equity Tier 1 capital ratio	11.1%	8.9%	7.3%	4.5%
Tier 1 risk-based capital ratio	12.6	10.6	8.9	6.0
Total risk-based capital ratio	15.1	13.2	11.5	8.0
Tier 1 leverage ratio	10.3	8.6	7.3	4.0
Supplementary leverage ratio	8.8	7.2	6.1	3.0

⁽¹⁾ Capital ratios are calculated based on the Basel III Standardized Approach framework.

⁽²⁾ The capital ratios are calculated using capital action assumptions provided within the DFAST rules. 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 capital ratios presented represent the minimum and the end of period ratios for the nine quarter forecast horizon from Q3 2018 to Q3 2020.

Table 1.2: Actual Q2 2018 and projected Q3 2020 risk-weighted assets under the DFAST rules in Capital One's Severely Adverse Scenario⁽¹⁾

<i>(Dollar in billions)</i>	Actual	Projected
	Q2 2018	Q3 2020
Capital One Financial Corp	\$ 285.2	\$ 255.1

⁽¹⁾ Risk-weighted assets are calculated under the Basel III Standardized Approach.

Table 1.3: Projected Revenue, Losses and Net Income Before Taxes for Q3 2018 to Q3 2020 under the DFAST rules in Capital One's Severely Adverse Scenario

<i>(Dollars in billions)</i>	Amount	% of Average Assets ⁽¹⁾
Pre-provision net revenue ⁽²⁾	\$ 27.4	7.9%
Other revenue ⁽³⁾	—	
Less:		
Provisions	34.6	
Realized losses/(gains) on securities available for sale	0.1	
Trading and counterparty losses ⁽⁴⁾	—	
Other losses/(gains)	—	
Net income before taxes	\$ (7.2)	(2.1)
Supplementary information:		
Other comprehensive income ⁽⁵⁾	\$ 2.4	—
Other effects on capital	Actual	Q3 2020
	Q2 2018	
AOCI included in capital calculations	\$ (1.0)	\$ (0.2)

⁽¹⁾ Expressed on a nine-quarter cumulative basis as a percentage of average assets over the same time period.

⁽²⁾ Pre-provision net revenue includes stress adjustments for operational risk events.

⁽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 losses, changes in credit valuation adjustments (“CVA”) and incremental default losses and losses arising from the counterparty default scenario component applied to derivatives, securities lending, and repurchase agreement activities.

⁽⁵⁾ As an Advanced Approaches BHC under the new capital framework, accumulated other comprehensive income (“AOCI”) is included in calculations of regulatory capital subject to the transition provisions. Other comprehensive income includes incremental unrealized losses/gains on available for sale securities.

Table 1.4: Projected Loan Losses by Type of Loans for Q3 2018 to Q3 2020 under the DFAST rules in Capital One's Severely Adverse Scenario⁽¹⁾

<i>(Dollars in billions)</i>	Capital One Financial Corp	
	Amount	% of Average Portfolio Balances ⁽²⁾
Loan losses:		
First lien mortgages, domestic	\$ —	2.0%
Junior liens and HELOCs, domestic	—	6.6
Commercial and industrial ⁽³⁾	2.1	6.9
Commercial real estate, domestic	0.9	3.1
Credit cards	22.0	21.2
Other consumer ⁽⁴⁾	4.8	9.1
Other loans	0.2	1.0
Total loan losses	\$ 29.9	12.8

⁽¹⁾ Reflects loan classification under regulatory reporting FR Y-9C - Consolidated Financial Statements for Holding Companies (“FR Y-9C”). This classification is different than how Capital One classifies loan product types for Securities and Exchange Commission (“SEC”) reporting purposes. For example, FR Y-9C requires that small business credit card loans be reported under commercial and industrial, whereas these loans are reported under credit card for SEC reporting purposes.

⁽²⁾ Average loan balances used to calculate portfolio loss rates exclude loans held for sale and are calculated over nine quarters.

⁽³⁾ Includes small business credit card loans, small and medium enterprise loans and corporate cards.

⁽⁴⁾ Includes auto loans.

Description of Projections

We have calculated our regulatory capital ratios (common equity Tier 1 capital, Tier 1 risk-based capital, total risk-based capital, Tier 1 leverage and supplementary leverage ratios), subject to applicable transition provisions, from the third quarter of 2018 through the third quarter of 2020 (the stress horizon) using the Basel III Standardized Approach framework. These projected ratios were assessed as to whether they exceed their respective regulatory capital minima. Our performance under the DFAST stress tests, including our capital ratios, is used by the Federal Reserve in its evaluation of Capital One's capital adequacy.

In modeling our Severely Adverse Scenario, our capital ratios are projected to be lower than in our baseline, but are projected to remain well above current regulatory requirements. Our common equity Tier 1 capital ratio is projected to decline to a low point of 7.3% in the third quarter of 2019. This low point is driven primarily by reserve builds in our consumer lending businesses and a disallowed DTA position.

The largest impact to our projected net income before tax in our Severely Adverse Scenario is due to the provision for credit losses. This impact is most pronounced in our credit card and commercial loan portfolios. The provision for credit losses is projected to increase, initially driven by the builds in the allowance for loan and lease losses and later by elevated charge-offs. Consistent with our experience in the last recession, as the economic stress dissipates and our loan balances decline due to elevated charge-offs and reduced new origination activity, we forecast allowance releases toward the end of the nine quarter period.

In addition to the provision for credit loss impact described above, we project revenues to decline as our loan portfolio contracts and reversals of finance charges and past due fees increase with rises in delinquencies and charge-offs. We incorporate modest rate paid pricing cuts in deposits, along with other management actions, to reduce costs and to partially offset the decline in demand for credit and resulting lower funding needs. We also expect marketing expense to decline (primarily due to lower originations), while operating expenses would be reduced modestly as higher collections and recoveries costs and costs associated with the other risks described above partially offset projected operating expense reductions due to lower originations and a smaller overall loan portfolio.

The largest balance sheet impact in our Severely Adverse Scenario is a reduction in the size of our loan portfolio. In addition to the direct impact of higher charge-offs, in a period of economic stress we typically experience reduced loan demand, and in response to deteriorating credit, our underwriting models systematically recalibrate using leading credit indicators and identify fewer lending opportunities, which naturally reduces marketing. These shifts rapidly help to offset deterioration in both our earnings and capital ratios by reducing non-interest expense and shrinking our balance sheet. The impact to balance sheet size driven by reduced loan demand and the natural reduction in lending opportunities that occur under economic stress is particularly pronounced for Capital One given the consumer-centric composition of our loan portfolio. Compared to most banks subject to stress testing under the Dodd-Frank Act, a much larger share of our loan portfolio is in asset classes that attrite quickly, specifically auto loans and credit cards.

Different factors drive the rapid attrition in these two asset types. Auto loans have relatively short contractual lives and there is a significant amount of voluntary prepayment on auto loans as consumers pay off loans early, usually due to the sale or trade in of the vehicle financed by the loan. While credit cards are revolving products that do not have the contractual amortization characteristics of auto loans, the impact of elevated losses and other factors, such as the voluntary pay down of balances, results in relatively rapid asset attrition. Due to this natural run-off, our credit card and auto loan portfolios shrink meaningfully absent a high level of new account originations.

As a result of our concentration in consumer lending, our marketing budget is disproportionately large compared to most other banks. For 2017, our marketing expense was \$1.7 billion. The natural reduction in our marketing activities as our underwriting models identify fewer lending opportunities that meet our profitability and resilience requirements is a meaningful lever for improving earnings and capital ratios under stress. The combination of lower loan demand that we expect to occur as the economy deteriorates, and fewer lending opportunities as our underwriting models systematically recalibrate to the worsening environment, immediately reduces our need for marketing. In our Severely Adverse Scenario we anticipate that marketing expense would naturally drop, partially offsetting the negative impact on our earnings from the economic downturn.

These assumptions are grounded in historical experience and the dynamics of our business. In addition to the direct impact to loan balances of higher charge-offs, we have observed the dynamics of reduced demand and tighter underwriting in past recessions and anticipate similar dynamics in future downturns. Importantly, these actions do not require us to form assumptions regarding competitor actions like changes in price. Rather, they are rooted in our own lending choices, the direct consequence of charge-off-driven reductions in loan balances, and the natural tightening that occurs as fewer lending opportunities meet our profitability and resilience requirements.

Considerations in Assessing our DFAST Projections:

Stress testing is intended as a point-in-time, scenario-based assessment of our ability to withstand a hypothetical and severe set of economic conditions concurrent with additional hypothetical idiosyncratic risks. As such, stress test results do not necessarily correlate to our planning forecasts or externally communicated forward-looking statements. The results of DFAST stress tests over time or comparison to CCAR stress tests may vary significantly due to differences in scenario design and the forecasted time horizon, among other factors.

Our performance in future stress periods may not be consistent with our prior experiences or models.

Stress tests have been an important tool in our overall risk and capital management approach for many years. Over time, we have developed a robust methodology and comprehensive set of models to simulate Capital One's performance under a range of scenarios. While we have incorporated our observations from actual results over the course of past economic downturns - most notably those from the 2008 recession - into our methodologies and models, there can be no assurance that our methodologies and models will be accurate predictors of our performance or capital levels in future downturns. Similarly, while our stress tests include a range of hypothetical economic stress scenarios, there can be no assurance that future recessions will have the same severity or profile as the scenarios we have modeled.