# Comprehensive Capital Analysis and Review

# MGT 6090 Mini Case

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The financial crisis in 2008 revealed the deficiencies in risk measurement, management practices as well as the robustness of large financial institutions. The crisis pointed out the need for more effective supervisory and internal capital adequacy assessment processes. In early 2009, the midst of the financial crisis, the Supervisory Capital Assessment Program (SCAP) which is the genesis of the Comprehensive Capital Analysis and Review (CARR), was used by supervisors to conduct stress tests for the 19 largest U.S. Bank Holding Companies (BHCs). The SCAP stress test assessed potential losses and capital levels by using a range of inputs, include BHCs' own estimate, model output and data collected from other financial institutions. Based on SCAP, CARR was initiated in the late of 2010 and designed to evaluate BHCs' capital adequacy process and its planned capital, for example, dividend distribution and capital repurchases. Initially, CARR only targeted to the 19 BHCs that participated in SCAP. However, in November 2011 Federal Reserve required all U.S. BHCs with consolidated asset of $50 billion or more to develop and submit annual capital plans. Currently, CARR is the primary mechanism conducted by Federal Reserve to ensure that large and complex BHCs  have a strong forward-looking capital planning process that ensure that they have sufficient capital to continue to serve as an intermediaries and to provide financial services even under extremely adverse economic and financial market conditions.

In order to fulfill the requirements of the Comprehensive Capital Analysis and Review, participating Bank Holding Companies (BHCs) must first submit a capital plan for the Federal Reserve to review. In the beginning of October each year, the Federal Reserve issues summary instructions to guide the BHCs through the submission processes. The BHCs have until the fifth of the upcoming January to submit their capital plan and supporting documents through a secure portal provided by the Feds. The capital plan is required to contain four majors parts. The first part consists of an assessment of the BHCs' capital usage and capital sources over a planning horizon of  9 quarters. The first quarter is the quarter during which the capital review is being conducted. During this quarter, actual capital data is used for the assessment. In the first part, factors such as revenue, losses, reserves should be estimated for the baseline scenario and stressful scenarios. The BHCs also need to report their results for Tier 1 Common Ratio etc. and their methodologies for maintaining them under said scenarios. The results of required stress tests should be discussed and accounted for in the capital plan. Lastly, the companies should have a discussion on their planned capital actions, such as dividend issuance or share repurchase.

The second required element of the capital plan is a description of the BHCs' capital adequacy process (CAP). The capital adequacy process is a firm's internal process for determining whether its risk management, loss/ resource estimation, capital policy making, capital level or governance are comprehensive and robust. For this part, supporting documents such as FR Y-14 schedules are required to provide the Feds with the models and methodology inventory. The risk identification process, stress scenario design process, governance framework, audit findings etc. should all be submitted as written summaries.

The third required element of the capital plan is the company's capital policy. During the capital planning process, a company decides on its expenditures on its operations such as research & development or capital investments. The capital policy is a guideline that the company has to adhere to when doing capital planning or taking any other actions related to issuance or distribution of its capitals. For instance, when a bank considers alternative capital actions under stressful scenarios, these action must obeys the capital policy just like the planned action does. Lastly, Bank Holding Companies are required to discuss changes to their business plans that might cause significant impact on capital adequacy and liquidity.

The stress tests are of great importance in the comprehensive capital review process. Before the BHCs submit their capital plan, they need to conduct stress tests under five different scenarios. The Feds provides three supervisory scenarios, they are: baseline, adverse and severely adverse. These three scenarios are outlined by the Dodd Frank Act stress test rules. The remaining two scenarios are baseline scenario and stress scenario designed by the BHCs. In 2015, six BHCs with large trading operations were required to conduct stress tests with global market shock into account. Scenarios with major counterparty default were also considered for some BHCs. The Federal Reserve not only requires banks to conduct stress test on their own and report the results, but also conducts stress tests by themselves as a quantitative assessment of the capital plan submitted by BHCs. They will obtain results such as stressed Tier 1 Common Ratio and compare them to minimum ratios required by regulations. In addition to the quantitative assessment of capital plans, the Federal Reserve also does a qualitative review of the BHCs' capital adequacy process (CAP). This assessment involve a large number of experts from different industries. They evaluate whether the firms had sound risk management, estimated loss/resources reasonably, made capital plans/policies comprehensively and maintained robust internal control/governance. Based on the results for both the quantitative and qualitative assessments, the Feds will either indicate no objection, or object to a BHC's capital plan and refrain the BHC from executing it.

The result of CCAR consists of two parts. Qualitative assessment and quantitative assessment. To execute new capital plans, companies must pass both qualitative and quantitative assessment.

Qualitative result was given by a group of experts. It has three types: Non-Objection, Objection and Conditional Non-Objection. Non-Objection means the Board of Governors approved the capital plan and would not put any restriction on capital distribution. However, if the Board of Governors identified significant deficiencies in a plan on several aspects such as risk management and internal controls, they would object this plan. Once a company got Objection, it may not make any capital distribution unless expressly permitted by the Federal Reserve. The last type of qualitative result is Conditional Non-Objection. The Federal Reserve reintroduced this type of result in 2015 after a one-year gap. For companies with Conditional

Non-Objection, they can use their new plans to do capital distribution, but they have to resubmit a new plan by September, if their new plan does not satisfactorily address the identified weaknesses by that time, they will still get an objection and have some restrictions on capital distribution.

Apart from qualitative result, the Federal Reserve also runs stress tests to do quantitative assessment. Five ratios are given as result of stress test. Tier 1 common ratio, common equity tier 1 ratio, tier 1 capital ratio, total risk-based capital ratio and tier 1 leverage ratio. The standard minimum requirement of these ratios is given based on Basel III. For each company, CCAR lists detailed data on how its capital plan performed during stress tests. If the minimum of a capital plan projected on a certain time interval is greater than the required minimum ratio, this plan is considered passed quantitative assessment. In fact, in CCAR 2015, all companies passed the quantitative assessment.

# Reference


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