Supervisory Capital Assessment Program

Chase Ross[1], Andrew Metrick[2]

December 4, 2015

[1] Project Editor, Yale Program on Financial Stability, Yale School of Management
chase.ross@yale.edu
[2] Michael H. Jordan Professor of Finance and Management, and Yale Program on Financial Stability Program Director, Yale School of Management
andrew.metrick@yale.edu

Abstract

When President Obama took office in 2009, the Treasury focused on restarting bank lending and repairing the ability of the banking system as a whole to perform the role of credit intermediation. In order to do so, the Treasury needed to raise public confidence that banks had sufficient buffers to withstand even a very adverse economic scenario, especially given heightened uncertainty surrounding the outlook for the U.S. economy and potential losses in the banking system. The Supervisory Capital Assessment Program (SCAP)—the so-called "stress tests"—sought to rigorously measure the resilience of the largest bank holding companies. Those found to have insufficient capital buffers were able to raise funds from the private sector, and if unable to do so, the Capital Assistance Program (CAP) would capitalize the firm with public capital. Ultimately, the SCAP test results were accepted as credible, the tested firms collectively raised more than enough private capital in the following six months to fill the capital shortfall calculated by the the SCAP and the CAP was unused.

Suggested citation: Ross, Chase and Andrew Metrick. 2015. "Intervention Study: Supervisory Capital Assessment Program." http://som.yale.edu/ypfs.

JEL Classification: G01, G28, H12, H81
Keywords: stress test, public capital injection, crisis intervention, financial crises

Overview

Program Description

In February 2009, the Treasury announced the Capital Assistance Program (CAP) in conjunction with the Supervisory Capital Assessment Program (SCAP). Their purpose was "to restore confidence throughout the financial system that the nation's largest banking institutions have a sufficient capital cushion against larger than expected future losses, should they occur due to a more severe economic environment, and to support lending to creditworthy borrowers." The Treasury was concerned about the lack of near-term private capital inflows large enough to break the dynamic between the perceived shortage of capital in the system and the loss of confidence that shortage engenders in the health of individual institutions in the strained economic environment. (Treasury White Paper).

To restore confidence, the SCAP employed a stress test and publicly released the results and methodology of the tests. Firms that required additional capital to meet their SCAP buffers were given six months to raise private capital and the firms unable to do so would then rely upon public capital, sourced from TARP funds via the CAP. Smaller firms not included in the SCAP were eligible to apply for Treasury funds through the CAP.

U.S. bank holding companies (BHCs) with assets in excess of $100 billion on a consolidated basis[3] were required to participate in the coordinated "stress test" known as the SCAP, and had access to the CAP immediately as a means to build any necessary additional buffer, although they could raise private capital over the following 6 months. The Treasury worked with federal banking regulators to develop this stress test to determine the health of the relevant financial institutions. As a result, the 19 largest BHCs, which together held two-thirds of assets and more than one-half of the loans in the U.S. banking system, participated in the SCAP on a mandatory basis. (OFS 2010).

[3] As measured according to the firms' assets report for 2008Q4 in the Federal Reserve's Consolidated Financial Statements for Bank Holding Companies (FR Y-9C).

While the SCAP was similar to stress tests that firms undertook as part of their ongoing risk management, the objective of this program was "to conduct a comprehensive and consistent assessment simultaneously" across the largest BHCs using a common set of macroeconomic scenarios and a common forward-looking conceptual framework. This framework allowed supervisors to apply a consistent and systematic approach across firms to evaluate projected losses and revenue estimates submitted by the firms and to conduct cross-firm analysis on the aggregate. The SCAP was considerably more comprehensive than stress tests that focus on individual business lines because it simultaneously incorporated all major assets and revenue sources for each firm. (FRS April 2009).

The SCAP involved the projection of losses on loans, assets held in investment portfolios, and trading-related exposures, as well as a firm's capacity to absorb losses that all combined to determine a sufficient capital level to support lending under a worse-than-expected macroeconomic scenario. Given the heightened uncertainty about the economic outlook and losses in the banking system, and the possibility for adverse economic outcomes to be magnified through the banking system, supervisors believed it "prudent for large BHCs to hold substantial capital to absorb losses" should the economic downturn be longer and deeper than anticipated. (FRS April 2009). In this sense, the tests represented a set of "what-if" scenarios and were not a set of estimates or projections. (FRS May 2009).

The SCAP was an important complement to the Treasury's support of the banking system. The Federal Reserve System (Fed) believed that the SCAP would help ensure the strength of the banking sector and revive markets' confidence in the banks. It believed that the program would help protect the taxpayers' investments in U.S. financial institutions. (FRS May 2010). It also believed the high level of transparency would help rebuild confidence in the banking system. In its results, the Fed noted, "[t]he decision to depart from the standard practice of keeping examination information confidential stemmed from the belief that greater clarity around the SCAP process and findings will make the exercise more effective at reducing uncertainty and restoring confidence in our financial institutions." Some two weeks later, Treasury Secretary Geithner's statement before the Senate Banking Committee on May 20, 2009 stated the review conducted under the SCAP was indeed "helping to increase confidence in the financial system." (Geithner 2009).

Outcomes

The Fed provided loan loss rates under two different macroeconomic environments —"baseline" and "more adverse" — to guide SCAP estimates. The SCAP found a more adverse economic scenario would result in losses of some $600 billion among the 19 largest BHCs from 2009 to 2010, implying total losses of $950 billion from mid-2007 to the end of 2010 when charge-offs and write-downs already recognized by the firms of about $350 billion were included. The same firms held some $835 billion in Tier 1 capital in Q4 2008 and all exceeded their minimum regulatory capital standards. (FRS May 2009).

This suggested the firms had enough capacity to handle the $600 billion in losses through 2010, and the firms would also generate revenues through the same period that could be used to offset losses, although firms would also need to build reserves against credit problems beyond 2010. Combining these factors, supervisors found the firms needed to add $75 billion more in capital buffers to meet the SCAP target buffer by the end of 2010 after accounting for Q1 2009 revenues under the "more adverse" scenario.

Nine of the 19 firms involved were sufficiently capitalized for the four percent Tier 1 Common capital and six percent Tier 1 capital targets established by the SCAP and almost all the firms had enough overall Tier 1 capital to withstand the more adverse scenario. Ten firms required $75 billion in additional capital. These 10 firms had virtually no shortfall in overall Tier 1 capital[4] but instead had insufficient common equity. Therefore, the 10 firms needed to increase their capital by increasing their Tier 1 Common capital[5]. Figure 1 shows the results by firm.

Initial reactions to the stress tests were "generally positive," although some market commentators questioned the use of the Tier 1 Common capital ratio instead of the tangible common equity (TCE) ratio, which many had originally assumed would be the supervisors' benchmark. Where the Tier 1 Common capital ratio is the capital of common shareholders as a percent of risk-weighted assets, the TCE ratio is equity less intangible assets, goodwill and preferred stock equity as a percent of tangible assets, which are the

[4] Tier 1 capital is "the sum of core capital elements less any amount of goodwill, other intangible assets, interest-only strips receivables, deferred tax assets, nonfinancial equity investments, and other items." (12 CFR part 225, Appendix A).

[5] Tier 1 Common capital is "tier 1 capital less the non-common elements of tier 1 capital, including perpetual preferred stock and related surplus, minority interest in subsidiaries, trust preferred securities and mandatory convertible preferred securities." (12 CFR §225.8). It reflects the fact that common equity is the first element of the capital structure to absorb losses, offering protection to more senior parts of the capital structure and lowering the risk of insolvency. All else equal, more Tier 1 Common capital gives a BHC greater permanent loss absorption capacity and a greater ability to conserve resources under stress by changing the amount and timing of dividends and other distributions. (FRS May 2009).

company's total assets less goodwill and intangibles. (Wall Street Journal, May 9 2009).

The Office of Financial Stability (OFS) reported that since the release of the results of the SCAP, the institutions subject to the stress test altogether increased their requisite capital by over $150 billion through September 2010. Additionally, OFS emphasized that after the SCAP participating BHCs raised this additional capital, more than 80 other banks raised sufficient capital to repay the TARP investments made by the Treasury (although not through the CAP). (OFS 2010).

Figure 1: SCAP Results

Firm	**Additional Capital Required**
Bank of America	$33.9 billion
Wells Fargo	$13.7 billion
GMAC	$11.5 billion
Citigroup	$5.5 billion
Regions Financial Corp.	$2.5 billion
SunTrust Banks	$2.2 billion
Morgan Stanley	$1.8 billion
KeyCorp	$1.8 billion
Fifth Third Bank	$1.1 billion
PNC	$0.6 billion
American Express	Adequate
Bank of New York Mellon	Adequate
BB&T	Adequate
Capital One	Adequate
Goldman Sachs	Adequate
JP Morgan Chase	Adequate
MetLife	Adequate
State Street	Adequate
U.S. Bancorp	Adequate

Source: Federal Reserve (May 7, 2009).

Key Design Decisions

1. Supervisors published the design of the stress tests and their results at a very detailed level

A key feature of the SCAP was the level of transparency involved. Under the SCAP, supervisors published the design of the tests and their results at a detailed level, much of which was usually confidential and not released publicly. The Treasury's Office of Financial Stability described this transparency as a novel step taken due to the unprecedented need to restore confidence. The Fed also noted that this was an unprecedented exercise, and the extraordinary economic and financial conditions that precipitated the program led the supervisors to take the unusual step of publicly reporting the findings of this supervisory exercise. The transparency and process sought to allow markets to credibly assess both the overall health of the BHCs as well as allow direct comparisons across the firms. Figure 2 provides a sample of the information published at the firm-specific level.

There were many critics of the transparency of the SCAP: the criticism fell broadly into three groups. First, some felt the transparency would violate the precedent of "supervisor confidentiality" that helped ally banks' reticence in sharing proprietary information with their supervisors. "In normal times, assurances of confidentially increase banks' willingness to cooperate with examiners by allaying any concern that their proprietary information would be obtained by competitors." (Bernanke 2015).

A second criticism was the possibility that full disclosures of a bank's capital position would reveal a firm as weaker than the market originally thought. In this case, the bank could suffer new runs and the markets' confidence would worsen. Former Chairman Bernanke noted:

> In the atmosphere of fear and uncertainty that prevailed in early 2009, we could not dismiss the possibility that disclosing banks' weakness could further erode confidence, possibly leading to new runs and further sharp declines in bank stock prices. Fed Board members agreed, however, that releasing as much information as possible was the best way to reduce the paralyzing uncertainty about banks' financial health. (Bernanke 2015).

A third criticism focused on the supervisor's likelihood to whitewash the results of the tests in order to protect the weaker banks. In February 2009, after the Federal Reserve announced the first details on how it intended to test the banks, the markets and media felt the tests' results would likely be overly optimistic. The day of the announcement, the *New York Times* described the tests as ". . . analysts say the administration's worst projections, which it describes as unlikely, are not much more dire than what many private forecasters already expect." The *Times* quoted a bank analyst: "It sure sounds to me like they are designing this to make it sound like the banking system is in great shape." (New York Times, February 25, 2009).

Figure 2: Estimates for Bank of America Corporation for the More Adverse Economic Scenario

At December 31, 2008	$ Billion	As % of RWA
Tier 1 Capital	173.2	10.6
Tier 1 Common Capital	74.5	4.6
Risk-Weighted Assets	1,633.8	
More Adverse Scenario		
Estimated for 2009 and 2010	**$ Billion**	**As % of Loans**
Total Estimated Losses[1]	136.6	
First Lien Mortgage	22.1	6.8
Second/Junior Lien Mortgage	21.4	13.5
Commercial and Industrial Loans	15.7	13.5
Commercial Real Estate Loans	9.4	9.1
Credit Card Loans	19.1	23.5
Securities (AFS and HTM)	8.5	-na-
Trading & Counterparty	24.1	-na-
Other[2]	16.4	-na-
Memo: Purchase Accounting Adjustment	13.3	
Resources Other Than Capital to Absorb Losses[3]	74.5	
SCAP Buffer Added for More Adverse Scenario[4]		
Indicated SCAP Buffer as of December 31, 2008	46.5	
Less: Capital Actions and Effects of Q1 2009 Results[5]	10.9	
Other Capital Actions[6]	1.8	
SCAP Buffer	33.9	

[1] Before purchase accounting adjustment

[2] Includes other consumer and non-consumer loans and misc. commitments and obligations

[3] Resources to absorb losses include pre-provision net revenue less the change in the allowance for loan and lease loans

[4] SCAP buffer is defined as additional Tier 1 Common/contingent Common

[5] Capital actions include completed or contracted transactions since Q4 2008

[6] Capital benefit from risk-weighted assets impact of eligible asset guarantee

Note: Numbers may not sum due to rounding

Source: Federal Reserve (May 7, 2009)

2. The Fed helped increase credibility of the tests by considering two different macroeconomic scenarios, with the "adverse" scenario projecting more severe loss estimates than many market analysts

The Fed provided indicative loss rates under two different macroeconomic environments—"baseline" and "more adverse"—to guide BHCs' estimates. The Fed supervisors chose particularly severe conditions in the "more adverse" scenario, with the estimated commercial bank two-year loan loss rate at 9.1%, a rate higher than any observed from 1920 to 2008. The scenario also included estimates of unemployment at its highest level since the 1930s. Figure 3 details the two scenarios. Firms used these two scenarios to conduct their own estimates, and then the Fed staff analyzed each firm's estimates independently. (FRS May 2009).

Figure 3: SCAP Economic Scenario

	2009	2010
Real GDP[1]		
SCAP Average Baseline[2]	-2.0	2.1
Consensus Forecasts	-2.1	2.0
Blue Chip	-1.9	2.1
Survey of Professional Forecasters	-2.0	2.2
SCAP Alternative More Adverse	-3.3	0.5
Civilian Unemployment Rate[3]		
SCAP Average Baseline	8.4	8.8
Consensus Forecasts	8.4	9.0
Blue Chip	8.3	8.7
Survey of Professional Forecasters	8.4	8.8
SCAP Alternative More Adverse	8.9	10.3
House Prices[4]		
SCAP Average Baseline	-14	-4
SCAP Alternative More Adverse	-22	-7

[1] Percent change in annual average.

[2] Baseline forecasts equal the average projections in February 2009.

[3] Annual average.

[4] Case-Shiller 10-City Composite, percent change, Q4/Q4.

Source: Federal Reserve (May 7, 2009).

3. The stress tests were based on targets for the amount of Tier 1 capital firms should hold

Fed staff examined both the level of capital in each BHC as well as the composition of the capital held by evaluating the Tier 1 risk-based capital ratio, which is the ratio of Tier 1 capital to risk-weighted assets. The Fed also evaluated common equity's share of Tier 1 capital. Tier 1 capital was required to be at least half of qualifying total capital. In practice, these measures are referred to as the Tier 1 Common capital ratio and the Tier 1 capital ratio where the former excludes preferred shares and non-controlling interests and the latter includes them. Regulators focused on Tier 1 Common specifically as it is the first to absorb losses and so acts as a permanent cushion that BHCs can adjust to changing circumstances by varying dividends and their timing. (12 CFR part 225, Appendix A).

In designing and implementing the tests, the Fed sought to answer two questions to determine the resources required to withstand a more adverse macroeconomic environment:

1. If the economy follows the "more adverse" scenario, how much additional Tier 1 capital would an institution need today to be able to have a Tier 1 risk-based ratio in excess of six percent at year-end 2010?
2. If the economy follows the "more adverse" scenario, how much additional Tier 1 Common capital would an institution need to have today to have a Tier 1 Common capital risk-based ratio in excess of four percent at year-end 2010?

The test design also assumed that the institutions would continue to operate under the regulatory framework existing as of December 31, 2008 and under any significant changes in the framework that would take place over the next two years. The stress test included an assessment of capital at the end of 2010 capturing expected losses in 2011, as BHCs participating in the SCAP booked the majority of their assets on an accrual basis. (FRS April 2009).

4. The Fed applied other than temporary impairment charges to securities that a bank was likely to sell or be forced to sell

Particular focus centered on losses in available-for-sale (AFS) and held-to-maturity (HTM) portfolios, as well as counterparty credit risk. Losses in these items would ultimately represent the largest share of total losses. Supervisors analyzed whether securitized assets would become impaired over their lifetime—if this were the case, and if credit support was insufficient to cover expected losses, the security was written-down to fair value.

In its analysis, the Fed considered whether a firm intended to sell a security or "whether it is more-likely-than-not that firms will be required to sell the security before recovery of its cost basis." Both scenarios triggered an "other than temporary impairment" charge. Regulators felt it best practice, following the Financial Accounting Standards Board's guidance, to account for the eventuality that firms might not be able to hold a security to recovery under more stressful conditions. For securities determined to be other than temporarily impaired, the loss was the difference between the amortized cost basis and fair value. (FRS May 2009).

5. Q1 2009 revenues were included in the stress test calculation

Market participants also questioned whether Q1 2009 results would be included in the estimates. After a period, regulators decided to include these revenues. In the subsequently published information for each institution, a line item addressed this explicitly as in footnote 3 in Figure 2 noting, "[c]apital actions include completed or contracted transactions since Q4 2008."

6. BHCs with capital shortfalls revealed by the SCAP would ultimately have access to U.S. Treasury funds if the firm was unable to raise private capital

If the SCAP test indicated a bank needed more capital, the Treasury would provide the additional capital buffer through the CAP in the form of convertible preferred securities should the bank be unable to raise enough capital through private sources. These convertible preferred holdings would be convertible to common equity "if needed to retain the confidence of investors or to meet supervisory expectations regarding the amount and composition of capital." (Treasury White Paper). The Treasury offered the CAP to all banks and qualifying financial institutions, unlike the SCAP discussed above which was limited to the 19 largest BHCs. BHCs had six months to raise additional capital, but could apply to the CAP immediately after the publication of the SCAP results and delay actual CAP funding for the six months while the firms raised as much private capital as possible.

Qualifying financial institutions (QFIs) were eligible to apply to the CAP. QFIs included BHCs, financial holding companies, insured depository institutions, and savings and loan holding companies, that were organized and operating in the United States, and deemed viable by the appropriate federal banking agency. Financial institutions controlled by foreign entities were ineligible. (Treasury February 25, 2009).

7. Regulators conducted the stress test on BHCs with more than $100 billion in assets on a consolidated basis

A government report highlighted the moral hazard concerns relating to the stress test under the SCAP. It pointed out that some saw the focus of SCAP on BHCs with more than $100 billion in asset size as a formal demarcation of "too-big-to-fail." The report also expressed that this focus of the SCAP created an impression that the federal government would protect the 19 BHCs at least for the duration of the financial crisis due to their size. (OFS 2010).

This concern somewhat materialized in rating agencies' practice of upgrading the largest banks based on their access to extensive support from the federal government in 2009. For example, Moody's upgraded ratings for deposits and senior debt issued by the six largest U.S. banks, based on its expectation of "a very high probability of systemic support" for such banks from the U.S. government. Moreover, Standard & Poor's gave a rating upgrade to Citigroup and the agency added that it would have been rated four notches lower with no government assistance. On the other hand, Standard & Poor's downgraded a Citibank subsidiary, Citibank Korea Inc., in its stand-alone rating because it felt that there was "uncertainty" about whether the U.S. government wanted Citigroup providing additional support to noncore oversea affiliates. (OFS 2010).

Evaluation

The SCAP was widely seen as a turning point for the U.S. banking system, due both to the SCAP's credibly tough loss estimates, as well as the capital backstop proved by the CAP. In order to make the tests credible, and therefore increase the likelihood the market accepted its results, loss estimates were particularly severe—higher even than loss rates during the Great Depression. Moreover, the availability of public funds via the CAP "gave regulators the right incentives." (Bernanke 2015). Without the CAP backstop, regulators may have been inclined to present over-optimistic assessments of the weakest banks. The results showed the banking system as relatively healthier than expected and markedly increased confidence in the banking system.

Resources Cited

- *FAQs on Supervisory Capital Assessment Program*. Board of Governors of the Federal Reserve System, February 25, 2009. *Federal Reserve doc-*

ument outlining initial design details and purpose of the SCAP

- *The Supervisory Capital Assessment Program: Design and Implementation*, Board of Governors of the Federal Reserve System, April 24, 2009. *Federal Reserve document outlining design details of the SCAP*
- *The Supervisory Capital Assessment Program: Overview of Results*, Board of Governors of the Federal Reserve System, May 7, 2009. *Federal Reserve document that announced the results of the SCAP*
- *Term Sheet for Capital Assistance Program*, U.S. Treasury. *Treasury document discussing terms of investments made via the CAP*
- *Government Offers Details of Bank Stress Tests*, New York Times, February 25, 2009. *Article discussing immediate reception to stress tests' proposed methodology*
- *Banks Won Concessions on Tests*, Wall Street Journal, May 9, 2009. *Article discussing the implications for targeting tangible common equity compared to common equity Tier 1*
- *Troubled Asset Relief Program: Two Year Retrospective*, Office of Financial Stability. *Office of Financial Stability report discussing the program and its outcomes in the context of the wider swath of TARP*
- *Statement by Timothy F. Geithner U. S. Secretary of the Treasury before the Senate Banking Committee*, May 20, 2009. *Secretary Geithner discusses the initial impact and market response of the SCAP's results*
- *The Courage to Act*, Bernanke, 2015. *Former Chairman Bernanke's memoir, which includes passages on policymakers' considerations when designing and implementing SCAP*

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Appendix

List of Other Resources

Summary of Program

- *FAQs on Supervisory Capital Assessment Program*, Board of Governors of the Federal Reserve System, February 25, 2009. *Federal Reserve document outlining initial design details and purpose of the SCAP*
- *The Supervisory Capital Assessment Program: Design and Implementation*, Board of Governors of the Federal Reserve System, April 24, 2009. *Federal Reserve document outlining design details of the SCAP*
- *The Supervisory Capital Assessment Program: Overview of Results*, Board of Governors of the Federal Reserve System, May 7, 2009. *Federal Reserve document that announced the results of the SCAP*
- *FAQs on Capital Purchase Program Repayment and Capital Assistance Program*, Treasury, 2008. *Treasury Document discussing relationship between SCAP and the CAP*

Implementation Documents

- *Term Sheet for Capital Assistance Program*, U.S. Treasury. *Treasury document discussing terms of investments made via the CAP*

Regulatory Guidance

- *12 CFR part 225, Appendix A, Section II.A.I. Provides definitions of Tier 1 capital ratios and describes components of qualifying capital*
- *Staff Positions 115-2 and FAS 124-2, Recognition and Presentation of Other-Than-Temporary Impairments*, Financial Accounting Standards Board (FASB), April 9, 2009. *Guidance describing the suggested process to account for debt securities held in the AFS and HTM accounts and when a firm must recognize other than temporary impairments*

News

- *Government Offers Details of Bank Stress Tests*, New York Times, February 25, 2009. *Article discussing immediate reception to stress tests' proposed methodology*

- *Bank Capital Gets Stress Test*, Wall Street Journal, February 26, 2009. *Article discussing initial media and market reaction to the test plans including criticisms and discussing the possibility of nationalizing the banks should the test results give poor indications of the banks' health*
- *Banks Need at Least $65 billion in Capital*, Wall Street Journal, May 7, 2009. *Article discussing the initial reaction of the test results*
- *Banks Won Concessions on Tests*, Wall Street Journal, May 9, 2009. *Article discussing the implications for targeting tangible common equity compared to common equity Tier 1*

Press Releases

- *Agencies to Begin Forward-Looking Economic Assessment*, Federal Reserve, FDIC, OCC, OTS Press Release, February 25, 2009. *Press release announcing the SCAP*
- *Joint Statement by Secretary of the Treasury Timothy F. Geithner, Chairman of the Board of Governors of the Federal Reserve System Ben S. Bernanke, Chairman of the Federal Deposit Insurance Corporation Sheila Bair, and Comptroller of the Currency John C. Dugan on The Treasury Capital Assistance Program and the Supervisory Capital Assessment Program*, May 6, 2009. *Press release the day before the SCAP's results were to be announced, describing how to understand the SCAP results and the nature of the mandatory convertible preferred capital to be used in the CAP*
- *SCAP Results*, Federal Reserve, May 7, 2009. *Press release which announces the results of the SCAP*
- *Statement by Timothy F. Geithner U. S. Secretary of the Treasury before the Senate Banking Committee*, May 20, 2009. *Secretary Geithner discusses the initial impact and market response of the SCAP's results*

Key Academic Papers

- *Macroprudential Supervision of Financial Institutions: Lessons from the SCAP*, Hirtle, Schuermann, Stiroh, 2009, NYFRB Staff Report. *Paper discussing the SCAP's combination of micro and macro prudential perspectives, describing key features of the SCAP in detail as well as how these features could be incorporated into bank supervision in the future*

Government Reports/Assessments

- *Consolidated Financial Statements for Bank Holding Companies: Reporting Form FR Y-9C*, Board of Governors of the Federal Reserve System, December 2008. *Document which determined whether a BHC held sufficient assets on a consolidated basis to be include in the SCAP*
- *Troubled Asset Relief Program: Two Year Retrospective*, Office of Financial Stability, October 2010. *Office of Financial Stability report discussing the program and its outcomes in the context of the wider swath of TARP*

Interview Questions

1. What was the justification for using the Tier 1 Common capital ratio in lieu of the tangible common equity ratio?
2. Why was the Federal Reserve chosen as the main regulator to run the stress tests, and to what extend was Treasury involved between the time of the stress tests' announcement in February 2009 and the results' announcement in May 2009?
3. What was the rationale of having the mandatory participation in the SCAP set at an asset size of $100 billion or over? What effect did the policymakers and regulators predict this set threshold would have on the on-going and future risk management of financial institutions?
4. How effective was the SCAP in restoring confidence in the supported institutions, the other non-supported institutions and the overall financial market? Would the SCAP be effective in preventing and managing future crises in not only selected large and complex financial institutions, but also the financial markets more broadly?
5. Is the fact that CAP went unutilized a sign of an effective government effort to restore confidence in the market or a reluctance on the part of the banks to take on the government intervention in fear of high costs or stigma?
6. How did supervisors decide upon capital adequacy ratios of a Tier 1 capital ratio of six(Pilegaard et al., 2014) percent and a Tier 1 Common capital ratio of four percent?
7. Compared to later European stress tests, to what extend was the SCAP accepted as credible because of the tough loss estimates and because of the credibility of the testing regulators (the Federal Reserve)?
8. What was the advantage to measuring the stress rather than in-the-moment capital in the Supervisory Capital Assessment Program?

9. Why was the window for firms to raise private capital or else turn to the CAP six months?
10. Discuss alternative ways the regulators could have provided transparency in their tests.
11. How did regulators decide to allow firms with which would receive Treasury capital from the CAP to convert the Treasury's preferred shares to common equity at a ten percent discount to the firm's stock price?
12. To what extent did the firms challenge the SCAP's initial findings and did this have any impact on the finalized, published stress test results?
13. What designs of a capital injection program help strike the right balance between sufficiently protecting the taxpayer's interests and effectively restoring lending activity in the market?