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Restoring Confidence in the Banking Sector:

A Review of the Supervisory Capital Assessment Program

On February 10, 2009 US Treasury Secretary Tim Geithner introduced a new Financial Stability Plan. This new plan was not only a defense of the financial system and its importance to an economic recovery, but also an acknowledgement that this system was still in a state of massive disrepair. Post the Lehman bankruptcy in September of 2008, a number of plans and programs had been debated and some implemented, and yet things were worse, not better.

> "As President Obama said in his inaugural address, our economic strength is derived from "the doers, the makers of things." The innovators who create and expand enterprises; the workers who provide life to companies; this is what drives economic growth. The financial system is central to this process…
>
> Instead of catalyzing recovery, the financial system is working against recovery. And at the same time, the recession is putting greater pressure on banks. This is a dangerous dynamic, and we need to arrest it…
>
> Our challenge is much greater today because the American people have lost faith in the leaders of our financial institutions, and are skeptical that their government has – to this point -- used taxpayers' money in ways that will benefit them. This has to change."
>
> Timothy Geithner

The last part of the quotation above speaks to the heart of the financial crisis. The American people specifically, and the global markets generally, lost confidence in our banking system and its regulators. Thus the foundation of the new plan was centered around restoring confidence with a public, comprehensive, and forward looking examination of bank balance sheets by federal authorities. This report, called the Supervisory Capital Assessment Program ("SCAP"), quantified for investors, the banks, and the public at large, the ability of our largest banking institutions (all banks with $100bn or more in assets) to withstand a continued deteriorating economic and business environment. And importantly, to the extent any of these institutions needed to raise capital as judged by the stress test and could not do so in the private markets, the Treasury would be there to fill the void. "Too big to fail" was defined and defended. The results were released in May and provided a punitive yet realistic backdrop to judge the strength of our banking system.

In order to understand the results of SCAP, this paper outlines not only the balance that regulators and banks seek to achieve between stability and profit, but also some of the fundamental terms, ratios, and conclusions highlighted in the report. With a basic understanding of the key metrics regulators use to assess the strength of our banking institutions, investors can gain insight to the important variables that influence the market's perception of the financial system and the institutions that comprise it.

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Below is a simple chart of a bank's capital structure. The further down the structure, the more expensive it is to raise capital for the bank. (To give a sense of this cost, examples are given for Bank of America and JP Morgan Chase.) However, regulators require banks to hold a sufficient level of the more costly capital as a buffer or protection for the banks creditors and depositors.

	Capital Credit	Cost	BAC	JPM
Senior Debt	None	Low	5.70%	4.90%
Subordinated Debt (Tier 2)			5.80%	5.10%
Trust Preferred/Hybrid (Tier 1)			8.20%	7.00%
Preferred Stock (Tier 1)			9.40%	8.10%
Common Stock (Tier 1)				
	High	High		

(Source: Barclays Capital)

Senior Debt receives no capital credit, as failure to make timely payments on interest is an event of default. Importantly, this debt is subordinate to depositors.

Subordinated Debt receives Tier 2 status, as missing interest payments is not an event of default, but would most certainly lead to legal action by the trustee on behalf of investors.

Trust Preferred/Hybrids as the word hybrids suggest, have features of both debt and equity, but get Tier 1 capital treatment. Dividends can be suspended, but are generally cumulative meaning the bank still owes all missed dividends once dividends are restarted. Because of their hybrid nature, regulators currently limit this type of capital to 25% of all Tier 1 capital, and remove some of their Tier 1 status as they approach maturity inside of 5 years. It is currently being debated whether to move that figure to 15%.

Preferred Stock dividends are generally not cumulative and thus get full Tier 1 treatment.

Common Stock is the highest quality capital from a regulator's viewpoint given that dividends are completely discretionary and stockholders have the last claim on assets.

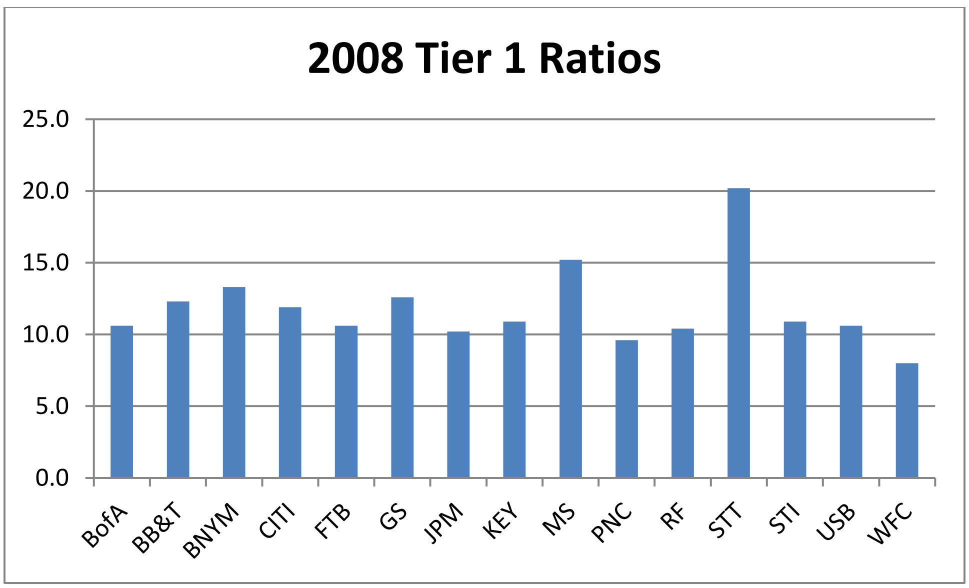
In order to monitor a bank's health given this capital structure, regulators have focused on something called the **Tier 1 ratio.** Tier 1 ratio is defined as follows:

$$\frac{\text{Tangible Equity + preferred stock + trust preferred + retained earnings}}{\text{Risk Weighted Asset}}$$

Tangible Equity refers to balance sheet equity (often referred to as book value) minus intangible assets. Balance sheet equity is simply what is left over when you subtract everything a company owes (liabilities) from everything a company owns (assets). If you buy a share of the company in the market, you are buying the market's valuation of this equity and its ability to generate future profits. To get the "tangible" equity component, all intangible assets, such as goodwill, are subtracted. The importance of *tangible* equity is to define what a company has leftover if you sold everything and paid off all of your debts. Intangibles only have value to a company as a going concern.

Risk Weighted Assets refer to a weighting scale set out by The Basel Committee on Banking Supervision to differentiate the riskiness of assets on a bank balance sheet. Low risk assets like cash have a zero weighting, a BBB-rated asset will have a 100% rating, and a below B- rated security will have a 150% weighting. So for example, if a bank had 100mn in assets with 10% in cash, and 90% in BBB rated securities, its risk weighted assets = 90mn. The idea is that the riskier assets require more capital support than less risky ones.

Regulators require a bank to maintain a Tier 1 ratio of at least 6% to be considered well capitalized. However, as the chart below shows, our largest financial institutions all met this criterion at the end of 2008 and yet the markets were not convinced.



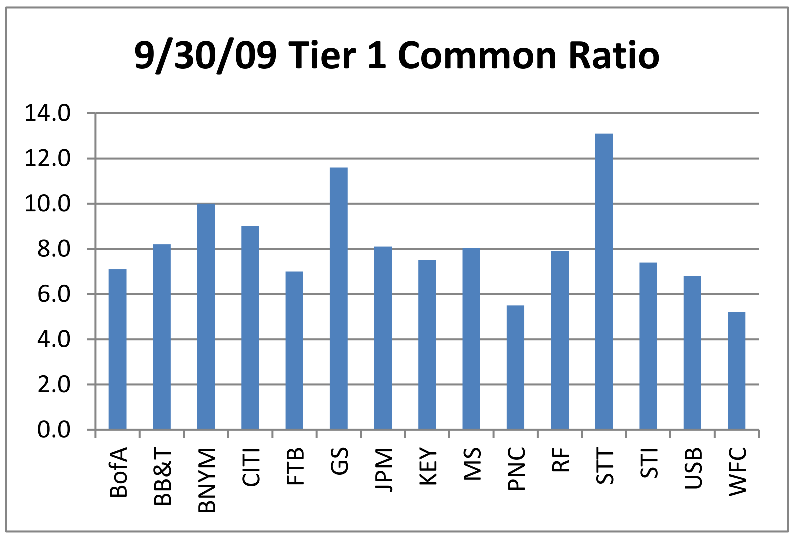
One of the problems with the data is fairly obvious. Like any balance sheet data, it is backward looking. Markets were not deriving any confidence from balance sheet data in a deteriorating environment. Thus regulators determined to publish a forward looking assessment of the strength of our largest banking institutions in a downside scenario much more punitive than was consensus at the time. The scenario would look at banks going out to the year ending 2010, and to the extent banks ratios were found to be deficient in this scenario, banks would be required to raise the additional capital on their own or with government assistance. Additionally, new emphasis would be placed on the **Tier 1 Common/Risk Weighted Assets Ratio.** This ratio eliminated any contribution of preferred and trust preferred capital from the previously mentioned Tier 1 Ratio. During the height of the crisis, banks were reluctant to suspend payments on any of the dividends owed on their preferred and trust preferred obligations for fear of generating further lack of confidence in their ability to weather the storm. Given this reluctance, regulators determined common equity needed to be a focal point in assessing capital adequacy and meeting the requirements dictated by the stress test.

When the results of SCAP were published in May, 4% was used as a benchmark for a strong Tier 1 Common Ratio, and the starting point for the amount of capital needed to withstand the regulators downside risk scenario. This helped provide the markets with a benchmark that could be held to each individual bank and to the industry as a whole. As a result, banks were given a quantifiable level of capital necessary to meet the governments comfort level. Below is a chart of the equity raised to meet those goals, and the current Common Tier 1 Ratios that have resulted as of 3Q '09 balance sheet data.

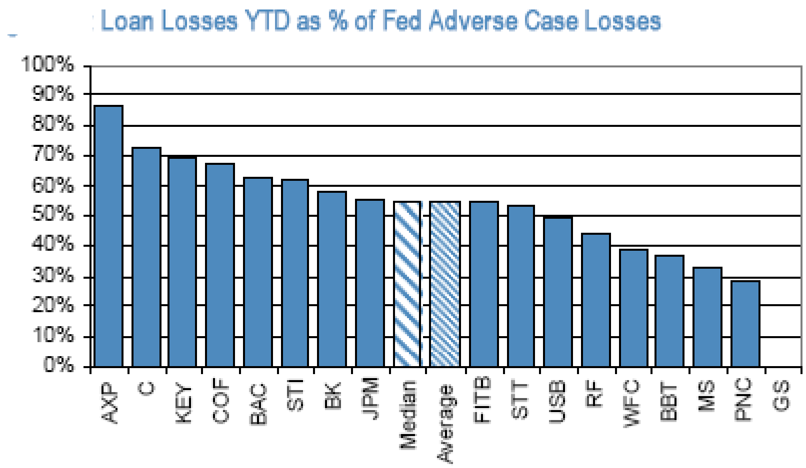
Common Equity Issuance

Issuer	Date	Amount (mm)
BAC	05/08/09	548
BAC	12/08/09	13,463
BBT	05/11/09	1,725
BBT	08/17/09	1,000
BK	05/11/09	1,389
FITB	06/04/09	1,000
GS	04/13/09	5,750
JPM	06/02/09	5,756
KEY	06/02/09	1,000
MS	05/07/09	4,566
MS	06/02/09	2,357
PNC	05/07/09	624
RF	05/27/09	1,840
STI	05/29/09	260
STI	06/01/09	1,615
STT	05/18/09	2,300
USB	05/11/09	2,755
WFC	05/07/09	8,627

(Source: JPMorgan)



The Tier 1 and the Tier 1 Common ratios remain an important metric for regulators and investors to monitor. However, as previously mentioned, it is the more forward looking assessment of the quality of bank balance sheets that will continue to weigh on or boost the confidence of the markets. Below is a JPMorgan graph showing bank loan losses (asset quality) at 3/31/09 as a percentage of the worst case scenario laid out in SCAP.



Source: Federal Reserve, SNL Financial

Note: Includes only loan categories broken out in stress tests (Residential mortgage, C&I, CRE, credit card)

So over the first 3 quarters of 2009, banks are seeing total loan losses at roughly half the rate assumed in the stress test used to determine adequate capital levels. Given the depths from which banks found themselves in late 2008 and early 2009, the heightened sensitivity to asset quality will remain over the next several quarters. Investors will be closely monitoring these loss rates to compare them to the stress test levels, which were designed to take us through the end of 2010. As we near the halfway point between the introduction of the new Financial Stability Plan and its stated ending outlook date, investors have already derived a large amount of confidence that the worst is behind us. Much of the current emphasis going forward appears on making sure there will not be a need for another new financial stability plan, via strengthened regulation and further oversight. Regardless of what form new regulation and oversight take, focus on asset quality, tangible equity, and Tier 1 ratios will remain.

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