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Free Capital – Know It and Use It

Regulatory philosophy has changed. Formerly based on historical trends, it is now forward-looking. To grow organically, make acquisitions, or placate a regulator, there's one important number you need to have – your Free Capital. Here's how — and why.

The financial crisis of 2008, the subsequent recession and its lingering aftermath have had a profound impact on the entire U.S. banking system. They have resulted in completely new definitions and applications of capital adequacy and given rise to new, still evolving regulatory standards. Bank risk managers now have responsibilities for tracking and maintaining capital sufficiency. Free Capital and its critical importance is a concept that has not yet been fully recognized by the banking community.

This paper:

- Discusses the evolution of these new regulatory standards;
- Provides guidance as to their utilization and usefulness;
- Explores the pitfalls of historical capital measurement criteria (but which is still in wide use);
- Demonstrates the importance of applying loan vintage analysis in determining Free Capital.

Since 2008, banks have focused on the survival, recovery and repositioning their institutions in a drastically reshaped landscape. Their efforts have been greatly complicated as regulators, shocked by the abject failure of historical capital adequacy systems, have struggled to redefine guidelines to deal with both existing conditions and to prevent future recessionary collapses.

In the inevitable struggle between regulators and banks, certain fundamental changes have been ignored. These changes have a profound impact on strategic planning, management, capital adequacy and, most importantly, the enhancement of shareholder value.

The New Regulatory Philosophy: Redefinition of Capital Adequacy

Starting in the 1980s, Basel I and Basel II capital adequacy regulations were based on formulas derived directly from **historical** loan performance ratios. The Comprehensive Capital Analysis and Review (CCAR) and Capital Plan Review (CapPR) processes, Dodd-Frank Act stress testing and, indirectly, Basel III are all based on a **pro forma** forecast developed under a "Severely Adverse Scenario."

The pre-crisis regulatory regime was backward-looking. The new philosophy is forward-looking. This philosophy can be summed up as follows:

- There is now a clear recognition amongst regulators that the continuously changing world economy has rendered simple extrapolation of historical experience misleading and dangerous.
- Regulators have learned that they must force banks to be in constant preparedness for severe economic events, *regardless of how unlikely they may seem at the time*.
- In the post-crisis world, present capital levels have to be sufficient to support predefined key ratios under a "Severely Adverse" two-year scenario. As for what a Severely Adverse Scenario is, the CCAR guidelines offer the best broad definition: it's a sharp increase in unemployment; it's a crash in financial markets, it's a huge increase in volatility.
- For every bank, regulatory capital is dynamic. It is a moving target that underlies, is integral to, constrains and supports all management strategic plans. Likewise, there is no one measurement of a Severely Adverse Scenario. The descriptive parameters will change over time.
- Finally, risk managers cannot undertake a simple assessment – they must be willing and able to perform scenario analysis on their banks, to explore how they will perform under different economic and market situations.

Influenced by Basel III and indeed their own experience during and since the financial crisis, regulators are imposing a new philosophy: **present day capital needs to be sufficient to support predefined regulatory ratios at the end of the two-year Severely Adverse Scenario**.

This redefined capital adequacy methodology has been implemented for larger banks through CCAR and CapPR, is planned for $10 Billion asset banks within the guidelines of Dodd-Frank, and will affect most of the rest via the proposed Basel III guidelines. All bank risk managers, bank analysts, ratings agencies and bank senior managements should be awake to this fundamental change in philosophy – yet many are not.

Know your Free Capital

There is a key financial metric fundamental to the new regulatory philosophy – "Free Capital."

This metric enables risk managers to generate, review and analyze strategic plans and initiatives within the constraints of regulatory capital adequacy. It facilitates intra-bank communications and directives, and provides senior management with an excellent means for communicating with investors and directors. It also sets targets and guidelines for maximizing shareholder value and minimizing risk.

Asset purchases, mergers and acquisitions, stock buy backs, dividend policies, etc., must be reviewed subject to this key metric. M&A, done without calculation of the target's inherent Free Capital, is highly irresponsible for both buyer and seller. Investor evaluations of banks based solely on historical financial performance, without considering the significant implications of this metric, will inevitably lead to poor investment decisions. Free Capital is the key metric for effective on-going communications with regulators. It is very powerful for helping weaker banks "buy time" with regulators, or for stronger banks to obtain approval for capital actions.

Definition and Implications

"Free Capital: The difference between the reported capital and minimum required regulatory capital, as calculated by a two-year *pro forma* analysis under a Severely Adverse Scenario."

Free Capital levels have major implications for all strategic planning activities:

- **Banks with negative Free Capital** have inadequate capital under the new guidelines. Management actions must be focused on raising new capital and/or reducing expenses and/or deleveraging assets and/or selling the bank.
- **Banks with minimal levels of Free Capital** have limited tactical and strategic options. Acquisitions simply would not meet with regulatory approval. The ability to implement organic growth strategies or undertake operating actions to meet competitive pressures are limited by the short-term capital impact of these actions.
- **Banks with healthy Free Capital** have room to implement strategic and operating plans, including acquisitions and aggressive organic growth. However, the very existence of excess Free Capital implies lower returns on total capital. These banks could come under pressure to use their Free Capital more effectively to maximize shareholder value. The analysis of the marginal return on Free Capital deployment therefore becomes an important part of strategic planning.

There are very few aspects of strategic planning that are not directly influenced by a bank's level of Free Capital. Properly employed, Free Capital has enormous return and shareholder value implications.

Free Capital is directly derived from stress testing. Stress testing is no longer a passive activity relegated to the Enterprise Risk Management department. Because stress testing is forward-looking, review of stress test results must be elevated to the Executive and Board levels and must become a critical component of strategic planning. Banks and bank investors that ignore this momentous shift do so at their own peril.

Steps for the Estimation of Free Capital

Step 1: Start with the current management business plan. Business plans are usually based on expected economic scenarios and small variations thereto.

Step 2: Subject the plan to an economic stress consistent with a Severely Adverse Scenario. This stress test must take account of loan vintage (see section below), and not just macroeconomic statistics and probabilities applied to the entire portfolio.

Step 3: Estimate the bank's capital position and regulatory ratios at the end of the two-year stress horizon. These ratios are compared to their regulatory minimum requirements.

Step 4: Factoring in the estimated capital decline given by the stress test, calculate the capital required today to meet those minimum regulatory requirements.

Step 5: The surplus, if any, of the bank's actual capital over that required to meet the *pro forma* regulatory minimums is the bank's Free Capital. If the result is a deficit, the bank has a capital shortfall.

The Community Bank Advantage – You Know Your Loans

For the large CCAR, CapPR and most Dodd-Frank banks, Free Capital estimation is a very complex exercise, consistent with their size and diversity. Conversely, it is extremely easy to calculate (given the considerations discussed below) and extraordinarily powerful for risk managers at community banks operating within limited geographical footprints and whose senior managements are close to their lending and investment activities.

CCAR 2013 clearly laid out the current Severely Adverse Scenario for the 19 $100 Billion - $2 Trillion asset banks to which it applies. Unfortunately, these scenarios were constructed by economists and are macro in nature. Furthermore, their effective use relies heavily on statistical and macro factors in quantifying loan risk. In a sense, these scenarios are akin to the unfortunate investment banking approach to lending that assumes uniformity of structure and risk across a range of "securitizable loans". This statistical relationship has some limited relevance

in analyzing loan portfolios that are large and regionally diverse. However, these assumptions collapse rapidly when dealing with the portfolio structures typical of most community banks.

Regulators have not defined how smaller banks should interpret these scenarios. Too many institutions depend on their individual historical summary statistics to extrapolate loan risk and performance. Many prominent market analysts and research firms have published extensive statistics, attempting to sell their interpretation and calculation of the impact of these scenarios on different loan categories. The reality, as understood by most experienced, hands-on bankers, is that factors such as loan vintage, loan history, pricing and repayment structures are far more important in evaluating risk than attempting a statistical correlation between econometrics-based macro stress factors, loan performance and risk.

The Risk Manager's Advantage – Focus on Loan Vintage and Other Loan Factors

In particular, loan vintage has more impact on a loan's present and *pro forma* risk profile than any other single variable. Vintage encapsulates loan structure as dictated by the then prevalent economic conditions. Any *pro forma* stress scenarios must be measured and calculated against the **relative change from the economic conditions for each loan prevailing at of origination**.

Loan structures, spreads, etc., are dictated by economic and competitive conditions at the time of origination and are generally "locked in" at the date of origination. Any *pro forma* analysis reflects changes in economic factors. These relative changes are highly significant. These factors must be evaluated relative to their changes from the origination periods of loans/loan groups and not from current conditions. It is the changes in economic environment that renders these locked-in factors susceptible to increased or reduced credit risk. Homogenously applying statistical economic rules to a portfolio, while ignoring the vintage layers of which it is comprised, is inherently flawed and inaccurate.

For their part, amortization schedules (themselves a function of the age of the loan and the era in which it was originated) define the magnitude of loans outstanding during the two-year stress horizon, directly weighting their specific and relative impact on an evolving basis through the stress horizon.

Regional differences in client behavior and local economic patterns also have a significant impact on the behavior of these portfolios. Here again, national macro statistics start to lose their already limited relevance.

- Loans degrade when economic conditions affect borrowers such that financial covenants and terms originally built into these loans fail to protect the lenders from the credit deterioration of the borrower.
- The magnitude of losses from loan failures in a prescribed *pro forma* analysis is directly tied to the valuation of cited and un-cited collateral established at the point of origination.
- The probability of failure is not just tied to the severity of recession; it is more a function of the duration of the recession.
- Loan collateralization is substantially different between loans, and influences the protective covenants built into loan structures. Competitive and market conditions during origination substantially affect these structures.
- While a recession affects all industries and all regions, the relative impact on specific industries and regions will be different in both magnitude and duration. *Each bank will therefore be impacted differently.*

All of the above are encapsulated in loan vintage. Fine-tuning individual stress factors, while ignoring vintage and amortization, practically guarantees logical errors and erroneous results.

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Knowledge is Power

Free Capital should be calculated by risk managers and recognised by bank managements and boards of directors.

- Every risk manager should calculate Free Capital at least quarterly. Calculating Free Capital requires stress testing. Stress testing loan portfolios must take into account loan vintage.
- Every bank president and all directors should know their bank's Free Capital. If they don't, they should ask the bank's risk officer. It should be a staple of any board of directors review package.
- Every bank's capital plan should quantify Free Capital and have a strategy for deploying it. The bank may choose to use Free Capital as an additional buffer. That is fine, but the management team and the board should make that as a conscious decision, and understand it relative to alternative uses of Free Capital.

There are very few aspects of bank senior management planning that are not influenced by Free Capital. In a highly competitive environment, characterized by shrinking margins and increased regulatory scrutiny, Free Capital is the key metric for effective communications with regulators on an ongoing basis. It enables banks to argue capital adequacy from positions of strength, so that they won't be steamrolled by regulators using blunt "one-size-fits-none" capital ratios. It is very powerful in helping banks under close regulatory scrutiny or worse to buy time with regulators. It helps stronger banks get approval for capital actions. Properly employed, it has enormous return and shareholder value implications. Acquisitive banks and investors will rue the day that they ignored this metric.

The shift in regulatory philosophy from using historic data to *pro forma* projections has important implications for all bank risk managers, senior managements and bank directors. If all bankers undertake stress testing and Free Capital analysis, the banking sector will be far more resilient – just as the regulators require – and individual banks may be able to achieve their fullest potential.

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