



RANK of Financial Ratios Defined by CAMEL

Each financial institution has a one-line analysis of financial ratios and a **one-number summary rank**. IDC Financial Publishing's (IDCFP's) unique CAMEL analysis utilizes financial ratios that have a significant impact on the quality of the financial institution.

Summary Rank:

Superior	Excellent	Average	Below Average	Lowest Ratios	Rank of One
200-300	165-199	125-164	75-124	2-74	1

Capital risk is determined by Tier I capital as a percent of Tier 1 assets and as a percent of risk-based assets. Tier I & II capital as a percent of risk-based assets (risk-based capital ratios) measures credit and interest rate risk as well as estimates risk in the asset base.

Adequacy of Capital and reserves measures the levels of delinquent loans, nonaccrual loans, restructured and foreclosed assets relative to loan loss reserves and capital.

Margins are the best measurement of management. Margins represent the spreads between 1) operating profit and net operating revenues, 2) after-tax return on earning assets less after-tax cost of funding, and 3) the return on equity (ROE) compared to estimated cost of equity capital (COE).

Earning returns measure the success of the bank's operating and financial strategies. Returns on earning assets (ROEA) before funding costs measures a bank's management of operations. Returns on financial leverage (ROFL) measures financial management and the degree to which a bank uses deposits, borrowing and debt to fund earning assets not funded by adjusted tangible equity.

Liquidity measures 1) balance sheet cash flow as a percent of Tier I capital and 2) loans compared to stable deposits and borrowings plus estimated unused lines of credit at the Federal Home Loan Bank.

Financial ratios, which illustrate IDCFP's CAMEL, represent most of the components of the RANK, but not all the financial ratios used in the RANK process.

Limitations to Use of Financial Ratios and Ranks

Ranks are designed to provide IDC Financial Publishing, Inc.'s opinion as to the relative value of financial ratios and are subject to limitations in their use. The ranks have no value in forecasting the direction of future trends of financial ratios. While in our opinion the selected ratios provide an ample financial picture for evaluating a thrift, the quality of individual savings institutions can also be influenced by factors not taken into account in this analysis.

The quality of a financial institution is not fixed over time but tends to undergo change. For this reason, changes in ranks occur, reflecting changes in the individual financial ratios.

The data for calculations and ranks and other information found in this publication was obtained from sources believed to be reliable and accurate; however, neither the publisher nor its employees assume responsibility for the correctness or accuracy of data, calculations of ranks, or liability for their use.

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Glossary for Bank CAMEL Report

C – CAPITAL RATIOS

Tier I Capital as a % of Assets

The Tier I Capital Ratio is provided by bank and bank holding company call reports.

Computations of Tier I Capital Ratios are based on Tier I capital and Tier 1 assets as filed by banks on FDIC call reports and by bank holding companies on Y-9C reports.

Tier I & II Capital as a % of Risk-based Assets

The Risk-based Capital Ratio is provided by bank and bank holding company call reports.

Computations of risk-based capital ratios are based on qualifying capital and risk-adjusted assets as filed by banks on FDIC call reports and by bank holding companies on Y-9C reports.

Tier I Capital as a % of Risk-based Assets

The Tier I Risk-based Capital Ratio is provided by bank and bank holding company call reports.

Tier I capital is divided by risk-based assets (as provided by banks and BHCs) and is shown as a percentage.

Ranks are capped based on levels of capital ratios. IDC caps rankings under the following conditions:

Category	Tier 1 Capital Ratio		Total Risk-Based Capital Ratio		Tier 1 Risk-Based Capital Ratio	Rank Cap
Well Capitalized	5% or Higher	+	10% or Higher	+	6% or Higher	None
Adequately Capitalized	4% to Less Than 5%	+	8% to Less Than 10%	+	4% to Less than 6%	124
Under Capitalized	3% to Less Than 4%	+	6% to Less Than 8%	+	3% to Less Than 4%	74
Significantly Under Capitalized	Less Than 3%	+	Less Than 6%	+	Less Than 3%	2
Critically Under Capitalized	Less Than 2%					

FDIC enforcement actions are reviewed each month for consent orders related to capital. If an institution is required to maintain a higher than adequate capital ratio, IDC uses requirement as being "Adequately Capitalized" for the purpose of calculating their rank.

A – Adequacy of Tier 1 Capital and the Loan Loss Reserve to Cover Loan Delinquency

Loan Loss Reserve as a % of Tier I Capital

The loan loss allowance is divided by Tier I capital and is shown as a percentage.

Loans 90 Days Delinquent as a % of Tier I Capital

Loans 90 days past due and accruing less loans guaranteed by U.S. Government or Rebooked "GNMA Loans" repurchased are divided by Tier I capital and is shown as a percentage.

Loans Nonaccrual + Real Estate Owned as a % of Tier I Capital

Loans on nonaccrual, a portion of restructured loans, and other real estate owned less loans and repossessed assets guaranteed by U.S. Government or Rebooked "GNMA Loans" repurchased are divided by Tier I capital and is shown as a percentage.

Adequacy of capital is determined by adding the ratio of loans 90 days delinquent to Tier 1 capital plus the ratio of nonaccrual loans and real estate owned to Tier 1 capital, then subtracting the ratio of the loan loss reserve to Tier 1 capital. If the ratio of delinquency exceeds the ratio of reserves, this reduces the amount of IDC's estimate of Tier 1 capital available to cover risk. If the adjusted ratio of Tier 1 capital falls below 5%, IDCFP ranks are reduced below 125.

M – Margins Measure Management

NOPAT ROE Less COE Measures Value Added

Common Shareholder's Net Operating Profit After Tax as a % of Tangible Equity Capital (NOPAT ROE)

Net operating profit after tax return on tangible equity is also defined as the sum of return on earning assets (before funding) and return on financial leverage (ROEA + ROFL).

Cost of Equity (COE)

The measure of a financial institution's cost of capital is the estimated cost of which the institution can raise additional equity capital. In appraising firms that are not public or subsidiaries of publicly traded or bank holding companies, IDC uses general risk, demonstrated by the 30-year T-Bond yield and the risk premium for financial equities. The risk premium is 50% of the T-Bond yield adjusted by a **risk multiplier** for an institution's specific financial risk.

The specific COE for an individual financial institution is determined by asset size, pretax coverage of net loan charge-offs, loan delinquency risk to capital adjusted for variations in operating profit margins, and the level of financial leverage. In order to quantify specific risk, a risk multiplier incorporates the following:

- a) Size Risk - The **risk multiplier** is multiplied by 0.9x for institutions with assets over \$1 billion, 1.0x for assets between \$500 million and \$1 billion, 1.1x for assets \$200 million to \$500 million, 1.2x for assets \$100 to \$200 million, and 1.3x for assets less than \$100 million.
 - b) Financial Risk - The **risk multiplier** is set in a range of 0.8 to 1.2 based on pretax income (adjusted for nonrecurring noninterest income or expense) plus the loan loss provision, together covering net charge-offs.
 - c) Loan Risk to Capital - Financial institutions with loan delinquency plus nonperforming loans greater than loan loss reserve, all stated as a percent of equity, are evaluated to measure potential loan loss risk to Tier 1 capital. If this risk-adjusted Tier 1 equity ratio is below 5%, the institution is assigned a loan risk ratio of 2.0. All other institutions with adequate risk-adjusted Tier 1 capital above 5% use a loan risk ratio of 1.0. The equity risk is adjusted by the loan risk ratio.
 - d) Variability of the Operating Profit Margin – Operating profit risk, which is 20% of the 5-Year standard deviation of the operating profit margin, is added to the equity risk which is then used to adjust the **risk multiplier**.
 - e) Finally, the **risk multiplier** is adjusted to reflect the use of financial leverage or the level of the leverage multiplier. A leverage multiplier of 7.0 or less uses a factor of 1.0 times the risk multiplier, while an increase in a leverage multiplier to 12.0 or higher requires as much as 2.2 times the risk multiplier.
- As an example, a large institution with low coverage of net charge-offs coupled with moderate loan delinquency above the loan loss reserve and a risk in operating profit margin of 3.6 times 20% and leverage of 7 would compute as follows: $(.9 \times .8 \times (1.0 + (.2 \times 3.6)) \times 1)$ or $(.9 \times .8 \times 1.7 \times 1)$, or 2.4 times equity risk premium of 50% of the long bond yield of 2.8%, on March 31, 2019. This equals a risk premium of 1.7% which is then added to the 2.8% yield on bonds to provide an estimate of 4.5% for the cost of equity capital.
 - An example of a smaller institution with a lower coverage ratio, modest loan delinquency, but larger variations in the operating profit margin of 5.0 and higher leverage multiplier of 9 would compute as follows: $(1.1 \times 1.0 \times (1.0 + (.2 \times 5.0)) \times 1.4)$ or $(1.1 \times 1 \times 2 \times 1.4)$, or 3.1 times 50% of the long bond yield of 2.8%, on March 31, 2019, for a risk premium of 4.3% added to the 2.8% long bond yield for an estimate of 7.1% for the cost of capital.

Banks reporting as Sub Chapter S corporations report net income after a zero-tax rate, while banks reporting as standard corporations use a 21% tax rate for 2018 and 34% prior to 2018. The cost of tangible equity capital (COE) for banks owned by a Sub Chapter S corporation, which reports zero taxes, is adjusted with a tax rate of 27% in 2018 and 34% prior to 2018 to reflect a pretax COE compared to a reported pretax ROE.

Operating Profit Margin

Net operating revenues less salaries, employee benefits, expenses of premises and fixed assets, and other operating expenses (excluding loan loss provision and losses on the sale of non-loan assets and amortization expense of intangible assets) are divided by net operating revenue, as a percentage. Net operating revenue is defined as interest income from loans and investments less interest expense plus noninterest operating income (excluding gains on the sale of non-loan assets, gains and losses on financial assets carried at fair market value, and bargain purchase income). The operating profit margin is the inverse of the commonly used efficiency ratio.

Risk to the Operating Profit Margin

One standard deviation of the operating profit margin over five years (but not less than five quarters) measures risk or volatility in profit margins. The risk level is also a measure of a bank's complexity.

E – Earnings Return

Return on Earning Assets (ROEA)

The interest income from loans and investments plus noninterest income less operating and loan loss expenses (excluding gain or loss on the sale of non-loan assets) less the applicable tax rate amount plus the increases in the loan loss reserve to reflect cash accounting is divided by average earning assets, as a percentage.

Return on Financial Leverage

ROFL reflects both the degree to which a bank uses debt and deposit funds to finance its operating strategy and the after-tax cost of these debt funds. ROFL is calculated by multiplying the leverage spread times the leverage multiplier.

Leverage Spread

The leverage spread equals the return on earning assets less the cost of adjusted debt, both after tax. The cost of adjusted debt equals the after-tax cost of funding divided by adjusted debt.

Leverage Multiplier

The leverage multiplier is defined as the ratio of adjusted debt to adjusted equity. Adjusted debt equals earning assets (which includes the loan loss reserve) less adjusted tangible equity. Adjusted tangible equity equals stockholder's tangible equity capital plus the loan loss reserve.

L – Liquidity Determines the Ability to Grow

Balance Sheet Cash Flow as a % of Tier I Net Worth

Balance sheet cash flow equals operating cash flow minus financial cash flow. It measures the profit return on physical assets in computing operating cash flow. When computing financial cash flow, balance sheet cash flow separates cash and equivalents (cash and balances due from depository institutions) from earning assets. Operating cash flow is defined as the change in retained earnings less the change in fixed assets. Financial cash flow is defined as the change in all liabilities and capital less retained earnings, minus the change in earning assets.

If a financial institution finances its growth with increases in retained earnings equal to increases in growth producing assets, but the financial cash flow is positive, then the balance sheet cash flow would be negative, showing the change in liabilities (excluding retained earnings) is in excess of the change in loans and investments. An institution with poor loan quality or risky investments experiences asset write-offs or write-downs, and at the same time deposits are increased, or new borrowings incurred, to finance the asset base. Balance sheet cash flow recognizes the shortfall and the risk to net capital of the institution.

Internal Growth of Equity Capital

The internal growth of equity capital is the reinvestment rate of retained earnings after dividends, plus the change in the loan loss reserve as a percentage of the previous periods equity capital and loan loss reserve. The internal growth rate of equity can indicate sustainable future growth.

Loans Noncurrent + Restructured + Other Real Estate Owned as a % of Loans

High risk loans and assets, which include loans 90-days past due, nonaccrual and a portion of restructured loans plus other real estate owned are divided by total loans plus other real estate owned.

Illiquid Loans as a % of Stable Deposits and Borrowings Plus Excess Liquidity

Another measure of liquidity is the match between illiquid loans and stable deposits and borrowings plus available lines of credit at the Federal Home Loan Bank (FHLB).

Illiquid loans are defined as loans and leases (net of unearned income allowance, and reserves for loan losses) less loans and leases held for sale. Stable deposits and borrowings are total domestic deposits less total time deposits greater than \$250,000 and other borrowed money with remaining maturity of one year or less plus excess of 80% of loans secured by 1-4 family 1st lien mortgages, 5 or more family mortgages and home equity loans, if greater than FHLB advances. The latter is added to deposits due to the ability to finance 80% of single family first mortgage, 5 or more family mortgages and home equity loans at the FHLB.

Interest-Bearing Liabilities as a % of Earning Assets (*Burden Ratio*)

The latest quarterly interest-bearing liabilities are divided by earning assets, as a percentage. A high level of liabilities requiring interest relative to earning assets paying interest creates a burden to the bank.