INVICTUS BANK INSIGHTS invictusgrp.com

SEPTEMBER 2018

DISRUPTIVE BANK INTELLIGENCE FOR THE C-SUITE AND BOARDROOM

info@invictusgrp.com (212) 661-1999 275 Madison Avenue, New York, NY 10016

DEPOSIT DILEMMA

By Adam Mustafa
Invictus Chief Executive Officer

USING AN UNCONVENTIONAL M&A STRATEGY TO BOOST DEPOSITS

We are in unprecedented times. The Fed is reversing both its zero-interest rate policy (ZIRP) on the short-end of the curve, and quantitative easing (QE) on the long-end. At the same time, the yield curve is basically flat, and there is even talk about inversion.

All this is starting to wreak havoc on the deposit portfolios of community banks. Many banks now find themselves with excessive loan-to-deposit (LTD) ratios, crimping growth and profitability. Rates on interest-bearing deposits are beginning to move upward, while deposits are starting to leave.

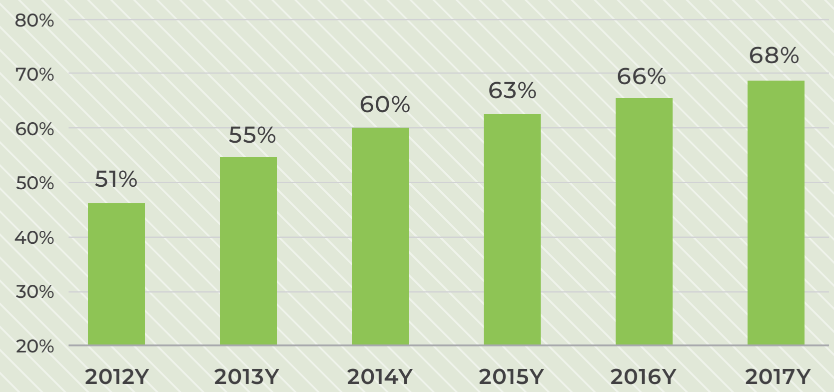
As banks grapple with their deposit issue, several hard truths must be considered:

1. **Status quo is not a viable strategy.** Banks with high LTD ratios must do something, or they will be forced to sell loans for a fraction of their earnings potential, have no capacity to book new loans, or lean on far-more expensive sources of wholesale funding. Those strategies not only crimp profits, but are unsustainable and represent nothing more than a short-term Band-Aid.
2. **Organic growth is not a practical option.** Opening or investing in a new branch is futile, plus it takes far too long to have an impact. This

DEPOSIT DILEMMA (cont. on p. 2)

PERCENTAGE OF COMMUNITY BANKS WITH MORE THAN 90% LOAN/CORE DEPOSITS (ALL U.S. BANKS $500M TO $10B)

More than two-thirds of community banks are now 'loaned up' with limited capacity remaining.



QE REVERSAL

By Adam Mustafa and Leonard J. DeRoma

DANGER AHEAD: HOW UNWINDING QE COULD EXACERBATE COMMUNITY BANK DEPOSIT ISSUE

Most community bankers know about quantitative easing (QE), the Federal Reserve's unprecedented policy to reduce interest rates further out on the yield curve, helping stimulate an economic recovery from the 2008 Financial Crisis. They also are familiar with the Fed's plans to reverse QE (also referred to as QE Reversal or Balance Sheet Normalization), announced in June 2017. This would essentially shrink the Fed's balance sheet by close to $2 trillion by the end of 2021 (only about 3 years from now).

However, there is very little understanding about how QE Reversal may affect their institutions. While the impact of QE Reversal is speculative since it has never been tried before, **there is a plausible enough scenario in which QE Reversal could lead to a painful reduction of deposits**. Many community banks are already struggling with deposit growth, and QE Reversal is in the first inning (the Fed's balance sheet has only shrunk by about $200 billion since June 2017). The threat of deposit balances potentially shrinking could lead to massive NIM compression, stunted loan growth, and perhaps even liquidity challenges — especially if a

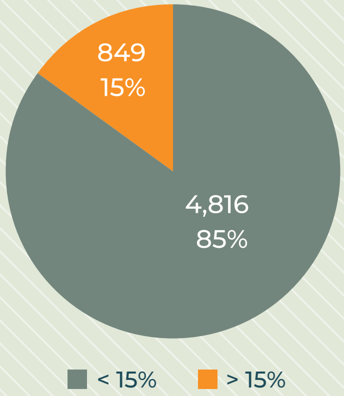
QE REVERSAL (cont. on p. 4)

DEPOSIT DILEMMA (cont. from p. 1)

is especially true in an environment and footprint where the deposit pie is flat or shrinking. In fact, total deposits have declined for the first time since 2008 (see chart below). Banks can only grow deposits organically by taking market share away from someone else. This means more hand-to-hand combat, and ultimately a price war.

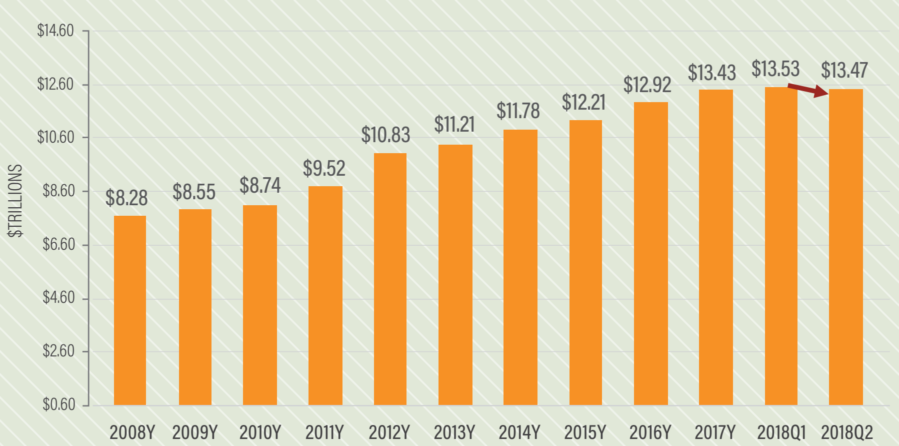
3. **Tax reform as an off-set will also have a short-shelf life.** Many banks are taking a false sense of comfort by reconciling the squeeze on the net interest margin with a massive reduction in tax expenses. While this is true on a per-dollar basis, the problem with this thinking is that EVERYBODY benefits from tax reform, not just your bank. And if everyone's ROE increases, then investors' expectations for ROE increase—it gets baked into the norm. In turn, this will result in an increase in the cost of capital, and suddenly a 10 percent ROE will no longer be good enough. We will be back to the days where 15 percent ROE is the hurdle rate. This will put a lot of pressure on banks that are not at this level of performance even after recognizing the benefits of tax reform.
4. **The climate may get worse before it gets better.** We might be in the very beginning of this banking economic environment. Core inflation is rising, which will pressure the Fed to become even more hawkish on short-term rates. The consequences of QE reversal are unknown, but it is possible that it may cause a significant deposit shortage and dislocation. This would exacerbate the pressure on NIMs and potentially create liquidity challenges. While nobody knows exactly what will happen, banks must have a contingency plan in place for such a scenario. In fact, a deposit shortage in the banking industry is a far more of a practical threat to community banks right now than another 2008-style crisis.

DESPITE BENEFITS OF TAX REFORM, ONLY 15% OF BANKS GENERATE MORE THAN 15% ROE IN 2018



DEPOSITS DECLINED IN THE BANKING SYSTEM DURING Q2 FOR THE FIRST TIME SINCE THE FINANCIAL CRISIS.

Total Deposits (All US Banks)



5. **Consolidation is likely to accelerate.** These issues will make community banks with high LTD ratios more vulnerable to becoming an acquisition target. Due to the constraints that lack of deposits have on loan growth, the case for maximizing shareholder value by selling the bank increases by default because the stand-alone case is trending downward.

M&A AS A SOLUTION?

While there is no panacea for the deposit challenge, banks in this predicament must explore acquisitions. M&A is the one strategy that can significantly alter the balance sheet and the LTD ratio — virtually overnight. M&A is especially an effective strategy in an environment in which organic growth is tough, if not impossible. However, while this strategy seems good in theory, there are three practical problems:

1. Most banks with an LTD problem are in growth markets, yet growth markets have few banks with low LTD ratios.
2. Those handful of banks with low LTD ratios are not for sale.
3. Conventional valuation methods (EPS accretion, TBV dilution, etc.) won't work, either because the acquiring bank doesn't have strong enough currency, or the seller (if it exists) wants a valuation that appears excessive relative to recent comparable transactions.

AN UNCONVENTIONAL APPROACH TO M&A TO CONSIDER

Unprecedented times call for unconventional strategies. And that means community banks should consider out-of-market acquisitions, with a particular focus on lower-growth and rural markets.

This strategy will significantly increase the number of viable targets and create significant financial value for the acquirer because it solves a financial problem (deposit growth). There is also strategic value in these acquisitions. They would not only allow a bank to substantially increase its deposit portfolio, but also

DEPOSIT DILEMMA (cont. on p. 3)

DEPOSIT DILEMMA (cont. from p. 2)

add loans in a new market, which will help diversify the loan portfolio from a credit risk perspective. The bank can then deploy excess deposits into its core legacy markets where deposits are a scare commodity, essentially optimizing its role as a financial intermediary.

While the acquiring bank might be concerned about its unfamiliarity with the target's market, this is more than offset by:

- a more conservative lending culture—one potential reason it has a low LTD ratio
- the lower 'beta' of its market relative to the overall economy, which means less downside risk
- the opportunity to retain the target's key leadership and even rank-and-file employees since they understand the market and customers.

However, the need to retain more personnel and the absence of branch overlap (that's the point of the acquisition) also means there is less opportunity for cost synergies. In addition, many of these banks will demand valuations that might appear 'excessive' if they are enticed to sell.

Those banks lucky enough to have a fungible equity currency trading at an attractive multiple can solve this challenge, but banks with out-of-balance LTD ratios are also less likely to be in that situation. They must use more cash or a weaker equity currency to fund the transaction.

Conventional techniques such as EPS accretion and TBV dilution analysis cannot properly measure the impact of these transactions on shareholder value. One problem: Banks are not honest with themselves when analyzing the baseline scenario of status quo. They often make rosy, unrealistic assumptions about loan growth, deposit growth, loan yields, and cost of funds—assumptions that do not reflect the reality of the environment. This sets the bar way too high for any realistic evaluation, leading to lower EPS accretion, greater TBV dilution, and a slower payback period.

Different analytics are required to properly value the balance sheet components of a prospective acquisition. The valuation of a target's deposits must capture the ability to replicate such deposits with organic growth (which is just about impossible in this environment as previously mentioned), the increase in capacity and resulting impact on profitability to preserve or make loans with those deposits, and the downside protection the target's deposits provide against a deposit drain caused by QE reversal.

Management teams must begin educating directors and shareholders on these challenges. Management teams will need to prepare and preempt resistance because this strategy is counter-intuitive. If the case is laid out properly, the vast majority of directors and shareholders will recognize how these types of acquisitions can ultimately maximize shareholder value. For those that still object, at least the CEO has fulfilled his or her fiduciary duty.

> **"It is vital to note that this unconventional strategy requires a first-mover advantage."**

It is vital to note that this unconventional strategy requires a first-mover advantage. A handful of banks in growth markets are already pursuing this strategy, but it is in its infancy. In six months to a year, however, expect more banks to follow suit, and there will be a mad rush to the proverbial rural door. But by then, it will be too late as those low LTD ratio banks willing to sell will have already been picked off. Waiting until the 'big fish' in your market announces an out-of-market acquisition to make it easier for you to pursue such a strategy is a mistake. This is where the CEO's courage and leadership come in.

Many banks, especially banks in growth markets, are finding themselves at a crossroads. The urgency to grow deposits is increasing, yet the pie for deposits in the market is either not growing or shrinking. While out-of-market acquisitions might still be a long shot, they must be explored as a potential solution.

Editor's Note: Invictus Group has developed a service for banks that would like to explore both in-market and out-of-market acquisition opportunities. This service will provide management with a process for identifying, properly analyzing, and closing transactions which will alleviate the deposit problem. For more information, please contact George Dean Callas, Chief Revenue Officer, at gcallas@invictusgrp.com.

ABOUT THE AUTHORS

Adam Mustafa, Invictus Group President and CEO

Adam Mustafa is President and CEO and co-founder of the Invictus Group. He has been providing strategic analytics, M&A, CECL and capital adequacy advisory services to banks, regulators, bank investors, and bank D&O insurers since the beginning of the financial crisis. He has an MBA from Georgetown University and a BA from Syracuse University.

Leonard J. DeRoma, Chief Corporate Development Officer And Director Of Liquidity Analytics

Leonard J. DeRoma is the Chief Corporate Development Officer and Director of Liquidity Analytics at Invictus. He began his career at Citibank in corporate finance, then spent the next 20 years in senior positions in fixed-income trading at Lehman Brothers, Barclays Capital and KeyBank. As the President of Barclays U.S. securities business, he was senior advisor to the U.S. ALCO committee and chaired the U.S. Credit and Risk Management Committee. He has a BS from the Massachusetts Institute of Technology and an MBA from the Harvard Business School.

QE REVERSAL (cont. from p. 1)

community bank is already 'over loaned up'. Further, it will put community banks in direct competition with large money center banks for remaining deposits.

This article provides an overly simplistic summary of the QE and QE Reversal processes. It is important to discuss the mechanics, because once you understand how QE and QE Reversal work, it's easy to see the ultimate conundrum your bank may face. Bankers can use their own judgment about how much of a threat QE Reversal presents.

Invictus does not have a crystal ball and isn't in the prediction-making business. But we are in the risk management and strategic planning business, and our strong advice to community banks is this: You need to understand what can possibly happen and plan accordingly. Depending on your situation, you may want to adjust your strategic plans over the next 3 years to play both defense and offense (QE Reversal may present a rare but massive opportunity to exploit the weaknesses of your peers, both in and out of your footprint).

THE MECHANICS — QE FOR DUMMIES

Now, let's get into it...and we promise to lay this out in a way where you won't need a PhD in macroeconomics. This illustration dramatically oversimplifies QE, leaving out some intermediate steps plus other aspects related to the supply and demand of bank deposits, the nuances of the M2 money stock, the velocity of money, and the effect of the money multiplier.

Let's say it's 2010 and the Fed is about to undertake QE. The Fed enters the market and buys existing securities (we'll use mortgage-backed securities (MBS) as the example.) The MBS is worth $100 and owned by Bond Fund A. Bond Fund A's balance sheet looks like this:

Bond Fund A

	ASSETS	LIABILITIES/ CAPITAL
MBS	100	
SHAREHOLDERS EQUITY		100

So, it calls a primary dealer (assume JPMorgan Chase, for simplicity) that in turn buys the MBS from Bond Fund A and immediately tenders it to the Fed. The Fed pays for the MBS by crediting JPMorgan's 'reserve account' at the Fed, which is basically a deposit account. This crediting of JPMorgan's account is how the Fed creates money out of thin air and expands its balance sheet. JPMorgan now has an extra $100 of deposits (belonging to Bond Fund A), and the banking system has an extra $100 of deposits. A quick summary of all three participants' balance sheets at this point:

	ASSETS	LIABILITIES / SHARE-HOLDERS EQUITY
BOND FUND A		
Cash	100	
Shareholders Equity		100
JPMORGAN		
Required + Excess Reserves (held at Fed)	100	
Deposits (Bond Fund A's)		100
FEDERAL RESERVE		
MBS	100	
Required + Excess Reserves (belonging to JPMorgan)		100

THE IMPACT OF QE ON THE BIG BANKS

JPMorgan now has $100 of fresh deposits it can deploy. It needs to keep $10 in reserves (there is a 10 percent required reserve ratio), but in theory it *could* lend out the remaining $90. If it did, another $90 of deposits would be created because the borrower would now have $90 of new deposits after receiving the loan proceeds. This would be on top of Bond Fund A's $100 deposit, creating a total of $190 in new deposits in the banking system. In fact, the magic of fractional reserve banking would create approximately a 10x multiplier (using a 10 percent required ratio) on the original $100 created by the Fed to purchase the MBS, making the total possible increase in deposits approach $1,000 instead of just $100!

However, JPMorgan didn't lend out most of this $90 for several reasons. First, underwriting standards are tighter than they were pre-2008. Second, the regulatory climate post-2008 provides a number of disincentives for lending, such as higher capital requirements, the CCAR stress tests, CFPB audits, and the Liquidity Coverage Ratio (LCR).

The LCR in short, basically requires the largest banks to retain enough 'high quality liquid assets' (HQLA) on hand to offset every $1 of possible cash outflows over the next 30 days. The less 'core' and the less 'retail' the deposit, the more likely there is an outflow. There is a complicated formula that governs this, but for the purpose of this article, the important aspect to grasp is this: JPMorgan's $90 of excess reserves (in excess of $10 of required reserves) that are deposited at its account at the Fed counts as HQLA. So in other words, QE created much-needed HQLA for the big banks!

Meanwhile, according to the LCR rules, JPMorgan would only have to assume that a percentage of Bond Fund A's deposits would be at risk so it gets plus $100 on the numerator (HQLA) and a smaller amount in the denominator (cash outflows), meaning its LCR benefited by some multiple greater than one in that single transaction. If JPMorgan loaned out the entire $90, it would not count as HQLA and the bank would be in jeopardy of not passing the LCR test.

Another important aspect of this free $100 in HQLA: The Fed is paying interest to the bank! The Fed only started paying

QE REVERSAL (cont. on p. 5)

QE REVERSAL (cont. from p. 4)

interest on excess reserves in October of 2008. When the Fed Funds rate was ridiculously low at 25 basis points during the trough of the rate cycle, the earnings stream on excess deposits didn't add up to too much. Fast forward to today, the Fed is paying 195 basis points interest on excess reserves, and that is expected to increase as the Fed executes more rate hikes over the next 18+ months. Now the banks are earning nearly 2 percent on this risk-free money. In the relatively flat-yield curve environment we are facing, one could argue that excess reserves are the best risk/reward assets these banks hold on their balance sheet. To achieve that same liquidity benefit in a steeper curve, the bank would have to go out on the yield curve to maybe the 2-to-3-year sector while at risk for potential principal losses in a rising rate environment.

So, in a nutshell, QE created a ton of benefits for the big banks. It created deposits out of thin air (the deposit market share of the top four U.S. banks increased significantly over the last 10 years). It created liquid assets that help the banks pass a liquidity stress test. And it then paid them interest on those same deposits, giving these banks a risk-free earnings stream that have a zero percent risk-weight under Basel III. Arguably the prolonged period of liquidity created by QE was better for the big banks than the bailouts were.

THINKING ABOUT QE REVERSAL

Now let's talk about what happens in QE reversal from a mechanical perspective. Imagine that the Fed decides to let all of the individual mortgages in the $100 MBS pay off. For simplicity, assume there is just one mortgage in the security — a mortgage owned by Bob and Cindy on their house. Assume for simplicity that Bob and Cindy also have a bank account at JPMorgan. Bob and Cindy pay off the $100 mortgage. That means that JPMorgan just lost a $100 deposit because Bob and Cindy need that money to pay the holder of their mortgage — which is the Fed. What does the Fed do with the money? It digitally burns it as fast as it created it

Up until late last year, the Fed would respond to this by purchasing a new MBS, starting the cycle again. Under QE Reversal, it will simply allow the MBS to run off its balance sheet without replacing it. As a result, $100 of deposits is eliminated from the banking system. In the future the Fed intends to accelerate the process by supplementing maturities with outright securities sales.

> **"One tactic in a multi-pronged strategy will almost definitely be to wage war on community bank deposits."**

The problem with QE Reversal is that it could take the aforementioned benefits away from the big banks. The big banks benefited the most, by far, from QE. They may also feel the brunt of the pain from QE reversal. Remember, we are talking about a plan for the Fed to shrink its balance sheet by $2 trillion over the next three years!

And this brings us to the real conundrum: How will the big banks respond? If the big banks are at risk of losing deposits, they won't just watch it happen. They will take action, and they are preparing for such a scenario as we speak.

One tactic in a multi-pronged strategy will almost definitely be to wage war on community bank deposits. The big banks are well- positioned to win such a war. They have a massive advantage over community banks because they are the ones that decide when deposit rates change in a given market. They have an operations, technology and analytics advantage, having spent billions of dollars in recent years to beef up electronic banking. The electronic banking presence combined with new products geared toward the next generation of customers gives them the advantage of raiding community banks' traditional deposit hunting grounds without the need for a brick-and-mortar presence. They also have an advertising, marketing, and name recognition advantage. In a sense, all they need to do is light a match.

Taking deposits away from community banks is more of a rounding error to solving this problem for the big banks. But even a small shift in market share in favor of the big banks could inflict tremendous damage — especially in a market where the deposit pie is not growing (or even shrinking). There are also many alternative theories from economists that suggest that the reduction in deposits from QE Reversal could be more than offset by a strong economy (which has the effect of creating deposits as more transactions occur). However, there is a massive headwind on deposit growth that threatens to offset and negate other positive theories (increased GDP, increased money velocity, etc.) on why deposits can grow. Either way there will be a no-holds barred battle to take market share in a world where everyone needs to keep growing.

FINAL THOUGHTS

Despite the talk about QE reversal, nobody is discussing how it presents a significant threat to community banks. There's no history for it, the lack of understanding is high, and the threat is indirect.

Still, the problem is real. The threat is how the big banks would potentially respond to QE Reversal. This article is not a prediction on how this scenario will unfold, but rather a wake-up call to inform community banks that they need to prepare for the possibility. If it's reasonably possible, then community banks should be at least talking about it, making contingency plans and even devising an offensive strategy to gain an advantage (there are always winners and losers).

READ BETWEEN THE LINES

OUR REGULAR FEATURE THAT REVIEWS NEWS FROM OR ABOUT REGULATORS TO GIVE PERSPECTIVE ON REGULATORY CHALLENGES.

Evaluate CECL Impact on Capital, Regulators Advise

Community banks should be educating their board of directors and staff about the differences between the new current expected credit loss (CECL) standard and the incurred loss model, which it replaces, regulators told banks on a July 30 Ask the Fed CECL call. At minimum, banks should determine the steps and timing needed for implementation, what method they will use to estimate their allowance, and what impact CECL will have on regulatory capital. Expect examiners to ask about how your bank is getting ready for CECL. Since CECL will require banks to have recognize credit losses over the life of a life, banks will need internal loss data to cover that history. If your bank doesn't have that kind of data, you'll need "to obtain external loss data or employ qualitative factors to estimate those expected credit losses," the regulators noted.

Senate Confirms New Federal Reserve Governor

The Senate has confirmed economist Richard Clarida to a four-year term as vice chairman of the Fed, filling the seat left vacant by the resignation of Stanley Fischer. He will serve until January 2022. Clarida, an economics professor at Columbia University and a former PIMCO managing director, served in the Treasury Department under President George W. Bush. Two other Trump nominees, state banking regulator and former Kansas banker Michelle Bowman and economics professor Marvin Goodfriend, have yet to be confirmed, leaving the seven-member panel with just four members. Clarida said in his confirmation hearing that he "absolutely" believed in Fed independence from White House pressure.

BHCs Up to $3 Billion Can Use More Debt in M&A

Small bank holding companies are now defined as institutions with assets up to $3 billion, a change mandated by the May 2018 Economic Growth, Regulatory Relief, and Consumer Protection Act. The Fed published an interim final rule, which became immediately effective on August 30, that increased the threshold from $1 billion. The change will allow more banks to use debt to finance up to 75 percent of the purchase price of an acquisition. Bank lawyers say that small holding companies can also consider using leverage to fund share repurchases so they can provide liquidity to shareholders.

OCC to Begin Taking Fintech Charters

The OCC announced it is now taking applications from non-depository fintech companies that want to operate as special-purpose national banks. The companies will be subject to the same safety and soundness standards as other national banks, including those concerning capital, liquidity and risk management, according to an OCC licensing manual. They will also be required to develop contingency plans to address financial stress, with exit strategies, and be subject to CRA-type rules. Fintech banks can lend money, but cannot take deposits. They must engage in traditional activities in new ways, such as using electronic payments as a way to pay checks. The New York State Department of Financial Services has sued the OCC to block the plan. New York banking regulator Maria T. Vullo said in a statement that the OCC move was "a lawless, ill-conceived scheme to destabilize financial markets."

Proposed Leverage Ratio Would Be Costly

A report from the Congressional Research Service, made public in September, concludes that the proposed community bank leverage ratio would add to the national deficit because it would increase risky bank behavior, leading to more bank failures. The report cites a Congressional Budget Office forecast that 70 percent of community banks would opt in to the ratio, which it predicts regulators would set at 9 percent. (The ratio is a key component of the Economic Growth, Regulatory Relief, and Consumer Protection Act, which calls for a new capital ratio of between 8 and 10 percent). "Without risk weighting, banks may have an incentive to hold riskier assets because the same amount of capital would be required to be held against risky, high-yielding assets and safe, low-yielding assets," the report noted. CBO estimated the new ratio would raise costs to the Deposit Insurance Fund by $240 million, about half offset by higher insurance premiums over the next decade.

INVICTUS BANK INSIGHTS

EDITOR Lisa Getter
E-MAIL lgetter@invictusgrp.com
WEBSITE invictusgrp.com

Invictus gives its clients a competitive edge in M&A targeting, CECL readiness, strategic and capital planning and more. Its unique analytics are powered by Bank GENOME

For information about Invictus, email info@invictusgrp.com.

To subscribe to Bank Insights, email newsletter@invictusgrp.com.