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DISRUPTIVE BANK INTELLIGENCE FOR THE C-SUITE AND BOARDROOM

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CECL TRENDS

By Adam Mustafa
Invictus Group President and CEO

THE BIGGEST CECL MISTAKE MOST BANKS WILL MAKE — AND HOW TO AVOID IT

Five years from now, every bank will have undergone at least one full year under the current expected credit loss (CECL) standard, and most public banks will have three years under their belts. Best practices will begin to emerge, and so will the biggest blunders.

Mistakes will be very expensive; the price to pay will include wasted shareholder value from grossly excessive loan loss reserves, unnecessary expenditures and needless time on implementing the wrong system, and ultimately, the need to start over to get it right. For community banks, these CECL mistakes will cost many millions of dollars, with multiples even higher for larger banks.

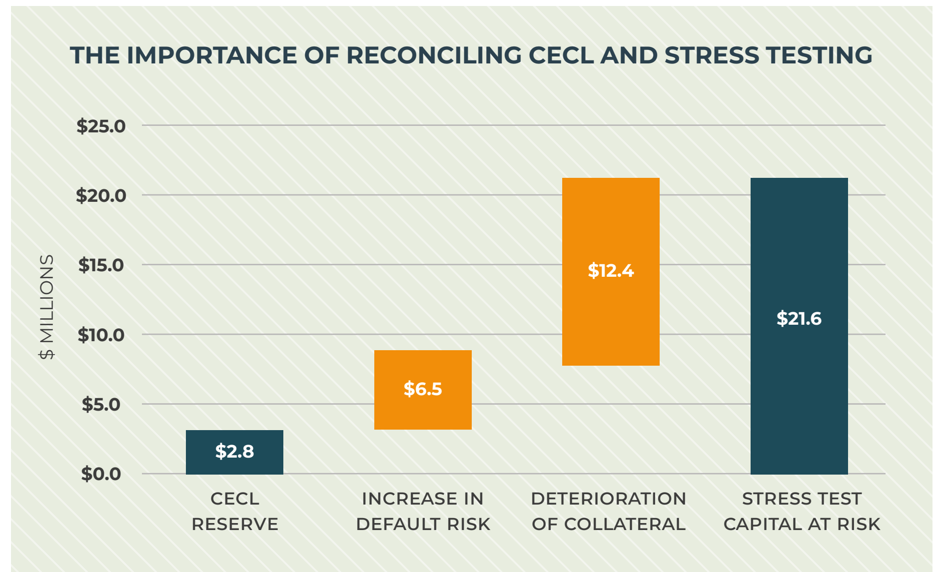
So why wait five years to find out what not to do? The CECL implementation travesty that appears to be unfolding for many banks can be avoided.

THE CRITICAL MISSTEP

The biggest mistake banks will make is the failure to integrate CECL with stress testing and other critical functions such as loan underwriting, loan pricing, strategic planning, and even M&A analytics. However, stress testing will be the match that lights the fire.

Stress testing has emerged as a critical function for community banks, particularly for those with commercial real estate and agricultural concentrations, and for acquisitive banks. As banks grow and cross various size

CECL TRENDS (continued on p. 2)



REGULATIONS

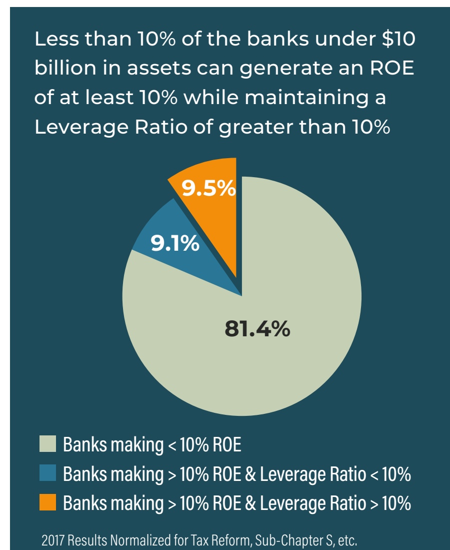
By Adam Mustafa
Invictus Group President and CEO

DISRUPTIVE THINKING: IS THE COMMUNITY BANK LEVERAGE RATIO FOOL'S GOLD?

The financial regulatory reform bill that recently passed in the Senate contains a number of so-called goodies for community banks. But one of those provisions is actually fool's gold: the "capital simplification" that calls for a new community bank leverage ratio.

Senate bill 2155, known as the Economic Growth, Regulatory Relief, and Consumer Protection Act, calls for bank regulators to develop a community bank ratio, based on tangible equity capital, "of not less than 8 percent and not more than 10 percent."

Regulations (continued on p. 3)



CECL TRENDS (cont. from p. 1)

thresholds, the bar is raised in terms of regulatory expectations for the use of stress testing for risk management, capital planning and strategic planning.

Stress testing is becoming as important as asset/liability modeling, which took a similar path to becoming a functional mainstay for the banking system when it started in the early 1990s. Federal Reserve Chairman Jerome Powell **testified** in March that supervisory stress testing "is the most successful regulatory innovation of the post-crisis era."

Stress testing analytics have evolved over the last eight years. The old days of running the "20/200" loan-level stress tests (those that assume a 20 percent decline in Net Operating Income and 200 percent increase in capitalization rates) are over. That type of analysis, while helpful for loan underwriting and credit monitoring purposes, has proven to be both difficult and useless for capital and strategic planning.

So why is it so important for stress testing and CECL to be integrated? Because they are the same analysis — if done correctly.

CECL AND STRESS TESTING SIMILARITIES

Both CECL and stress testing should be using the same raw loan-level information as inputs, and they should be utilizing the same analytical techniques to perform the calculations. The ONLY difference between a CECL calculation and a stress test should be the economic scenario that is assumed. And even that assumption might not always be different. When — and if — there is a downturn, the economic scenario for CECL and a bank's stress test would be identical, and therefore the results should be identical.

> This pitfall for banks will first emerge when a regulator or auditor starts comparing a bank's CECL calculation with its stress test.

This pitfall for banks will first emerge when a regulator or auditor starts comparing a bank's CECL calculation with its stress test. They will want to understand the variance, and they will expect management to be able to clearly explain the difference.

The auditors and regulators will not only use this as a way to validate the CECL calculation, they will also use it as a litmus test to evaluate management's capabilities from a capital planning and risk management perspective.

Those C-Suite teams that explain these variances with command are far more likely to be trusted by regulators to manage their institutions with elevated concentration levels, to grow via acquisitions, and to obtain the highest 'M' score on CAMELS ratings. In fact, the smartest banks will not even view this as a compliance exercise; they understand that the new calculator of capital adequacy in a post-2008 world is a stress test. They will be running stress tests to help decide how to allocate capital to maximize risk/reward and return on capital.

Think of it this way: CECL calculates expected losses, and the stress test calculates unexpected losses. It makes no sense to calculate those two numbers with different methods. The only way bank management can understand the variances between CECL and stress testing is to perform those calculations under the same roof with the same data and the same methods.

CHOOSING THE RIGHT APPROACH

The CECL guidance makes a variety of methods available for compliance. However, there is one method that is far superior to the other methods with respect to its applicability to both CECL and stress testing — and that is the Probability of Default/Loss-Given Default (PD/LGD) methodology. This method lends itself best to leveraging loan-level information, which is the key to both CECL and stress testing.

The reason that leveraging loan-level information is so vital is because it is the best, if not only way, to perform forward-looking analysis, which is what underpins both the spirit of CECL and stress testing. You can link risk

CECL TRENDS (cont. on p. 2)

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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

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CECL TRENDS (cont. from p. 1)

rating, debt service coverage ratios, time-to-maturity, structure, and credit scores to probability of default. You can link loan-to-value, collateral codes, and vintage to loss-given-default.

Some of the simpler methodologies that can be used to implement CECL, such as the open-pool and closed-pool methods, are useless for stress testing because they are too focused on historical losses on yesterday's loans and not forward-looking analysis on today's loans.

Some in the industry will also make a case for the discounted cash flow (DCF) method. The DCF method is certainly better than the open-pool, closed-pool, and vintage methods, and can be used for both CECL and stress testing.

However, the DCF method is dependent on two critical assumptions: the default rate and the recovery rate. Sound familiar? The default rate is the same as probability of default and the recovery rate is the inverse of loss-given default. In other words, if you are going to have a DCF that is worth its salt, you need to have a capable PD/LGD methodology in place as a prerequisite. Even with a PD/LGD methodology embedded into it, a DCF methodology brings a plethora of complications and challenges that the elegance of a stand-alone PD/LGD methodology avoids.

BENEFITS OF THE PD/ LGD METHOD

The PD/LGD methodology also lends itself perfectly for other functions such as loan underwriting, loan pricing, strategic planning, and M&A. At the end of the day, all of these functions should utilize the same basic information — a bank's loan and deposit level data. They should all talk to each other and feed one another. The PD/LGD method is the most portable to these other processes because of its unique blend of simplicity, natural alignment to credit analysis, and ability to leverage loan-level data.

Now is the time to take the right approach with CECL.

Many banks will make the unfortunate mistake of choosing a CECL methodology and stress testing analysis that have nothing in common, and can't work together. By 2023 or sooner, they'll have to start over when regulators and auditors start asking them to explain the gaps between their CECL calculations and their stress tests.

Banks should integrate their CECL methodology with stress testing at the start, which will give a bank's risk management processes the flexibility to adapt to critical areas such as loan underwriting, loan pricing, strategic planning, and even M&A analytics.

Integration must be a prerequisite for any CECL solution a bank considers. Taking this approach today will save banks from a tremendous amount of unnecessary pain and hardship over the next five years. It will give banks ammunition and credibility to defend their CECL calculations and preserve shareholder value, while avoiding succumbing to the 'peer group' card that regulators and auditors will ultimately play.

For more information about the Invictus Group's CECL services, please email **gcallas@invictusgrp.com**

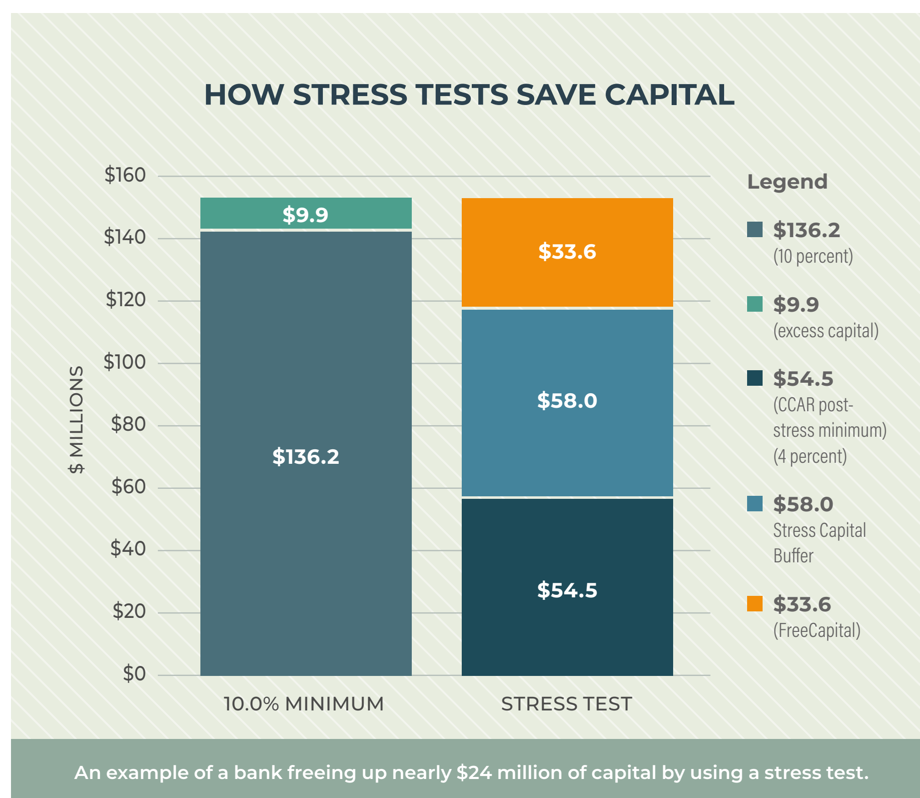
REGULATIONS (cont. from p. 1)

Though vague on details, the bill suggests that if a bank maintains a capital level above this requirement, it would be well-capitalized. Community banks would be able to opt into the new ratio, and ignore other capital requirements based on risk weightings.

BIG MISTAKE FOR MOST BANKS

But most banks that select this option may be making a big mistake. It is likely that regulators will choose a ratio of 9 percent or 10 percent. (The House bill that must be reconciled with the **Senate Bill** called for a regulatory off-ramp for banks that met a 10 percent leverage ratio).

We have seen regulators pushing more and more community banks toward a 10 percent minimum for roughly 18 months now. They have been primarily focused on those banks with high CRE and Agricultural concentration ratios and acquisitive banks (in some cases, quietly holding regulatory approval of a deal hostage until acquirers agree to maintain higher capital levels).



An example of a bank freeing up nearly $24 million of capital by using a stress test.

REGULATIONS (cont. from p. 3)

Whatever number the regulators pick will leave community banks with no option to optimize their capital requirements if they can prove that they can operate safely below it. This will be problematic for banks with concentration levels and unique business models that rely on assets with low risk weightings.

Indeed, an Invictus study found that 82.3 percent of community banks can — and should — safely operate with leverage ratios of 8 percent or lower today (see "Exclusive Study" on page 5 for results).

Remember the days when 5 percent was considered enough regulatory capital? Then it became 8 percent, and now it feels like 10 percent will become the norm — unless banks take matters into their own hands.

It is already difficult enough to generate a sufficient enough Return on Equity (ROE) for a community bank to justify its existence. Cementing in stone a 9 percent or 10 percent leverage ratio will only make it more difficult — and frankly impossible, for many banks.

COMMUNITY BANK ROE

Community banks must contend with tough headwinds threatening ROE as they transition from a post-crisis recovery cycle to a rising rate environment. As short-term interest rates increase back to normal levels and the Federal Reserve's policy of quantitative easing unwinds in what we call the "Normalization Period", they will face new challenges that typical bank analytics cannot predict.

Loan growth in most parts of the country has declined, deposits are quickly becoming a problem, both in terms of cost and volume, and there is no low-hanging fruit left to optimize the efficiency ratio through organic means.

Many bankers are hopeful that tax reform will change these conditions and spur lending. However, this new surge will have to trump (no pun intended) a Federal Reserve committed to increasing short-term interest rates and reversing QE, which makes it far from a guarantee.

While ROE levels will increase significantly with a lower effective tax rate, investors will also demand higher returns (which will further be exacerbated by rising interest rates). As a result, the cost of capital will significantly increase, and it's only a matter of time before we return to the days when 15 percent ROE was the expectation, not 10 percent.

NEW RATIO THREATENS INDEPENDENCE

Banks that choose the community bank leverage ratio may have less regulatory scrutiny, and perhaps lower compliance costs. But that will come with a significant price. They may find that they cannot generate sufficient ROE for shareholders, and end up putting their bank up for sale.

So, what should bankers do if the new ratio is set at 9 percent or 10 percent? Our opinion: Opt out.

HOW LEVERAGE RATIOS AFFECT THE BOTTOM LINE

An illustration of what happens to a $1 billion bank with $100 million in capital.

	WITH A **10%** REQUIREMENT	WITH AN **8%** REQUIREMENT
ASSETS	$1 BILLION	$1.2 BILLION
CAPITAL**	$100 MILLION	$100 MILLION
CAPITAL – REQUIRED	$100 MILLION	$96 MILLION
CAPITAL – EXCESS	0	$4 MILLION
NET INCOME (PRE-TAX REFORM)***	$10 MILLION	$12.5 MILLION*
NET INCOME (POST-TAX REFORM)***	$12 MILLION	$15 MILLION
ROE (POST-TAX REFORM)	12%	15%

* Assumes $200m of assets are added as some of the $20m of excess capital is deployed.

** Ignores impact of retained earnings for simplicity as $200m of assets are added.

*** Generally, assumes a 35% tax rate and 21% tax rate, respectively, but numbers rounded for simplicity. Also assumes pre-tax ROA of 1.5% on incremental earnings from $200m of capital deployed.

ABOUT THE AUTHOR

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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. Mr. Mustafa has overseen the design and implementation of fully-customized capital stress testing, capital management, CECL, and strategic planning systems for community banks ranging from under $100 million in assets to those with more than $10 billion in assets. He has also been a featured speaker on CECL, M&A and stress testing at conferences across the U.S., including those hosted by regulators. Prior to joining Invictus, he had senior-level experience as a banker, financial services consultant and corporate CFO. He has an MBA from Georgetown University and a BA from Syracuse University.

REGULATIONS (cont. on p. 5)

REGULATIONS (cont. from p. 4)

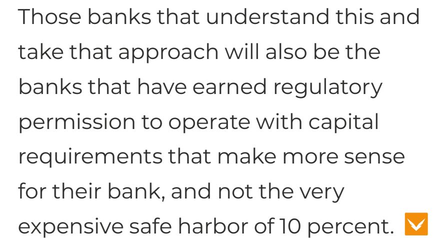
Bankers need to take the bull by the horns and calculate what their capital requirements should be based upon their bank's unique risk profile, risk appetite, business model, and geographic dynamics. They then need to take that analysis to their regulators and fight to make their case. The difference between an 8 percent requirement and 10 percent requirement for a community bank is massive.

Consider a $1 billion bank with $100 million of capital and a pre-tax reform ROA of 1 percent. If this bank can provide evidence that it needs only $80 million of capital, not $100 million, then it essentially frees up a whopping $20 million. If that $20 million is leveraged and deployed, it could create $2 million to $4 million of additional earnings. The table on page 4 illustrates the impact.

CALCULATING CAPITAL REQUIREMENTS

The only way a bank can calculate its own capital requirements in a post-2008 world is with a stress test. At the end of the day, the new definition of capital adequacy is based upon a bank's ability to withstand another severe downturn like the 2008 Financial Crisis. This is why regulators use the CCAR stress tests to customize capital requirements for the nation's largest banks. This is why Basel III was created, and why they proposed the creation of a **stress capital buffer** this month.

Think of a stress test as the new calculator. You will need to support your methodology and your assumptions, but the regulators will respect this calculator because it speaks to their holy grail (CCAR). If your calculator shows you only need 8 or even 8.5 percent capital, it is worth fighting for, as our example shows.



Most community banks are only running stress tests today because they feel like they must. It's become a de facto regulatory requirement — especially for banks with CRE or Ag concentrations. What they are missing is that stress testing is not about compliance. It's about capital adequacy.

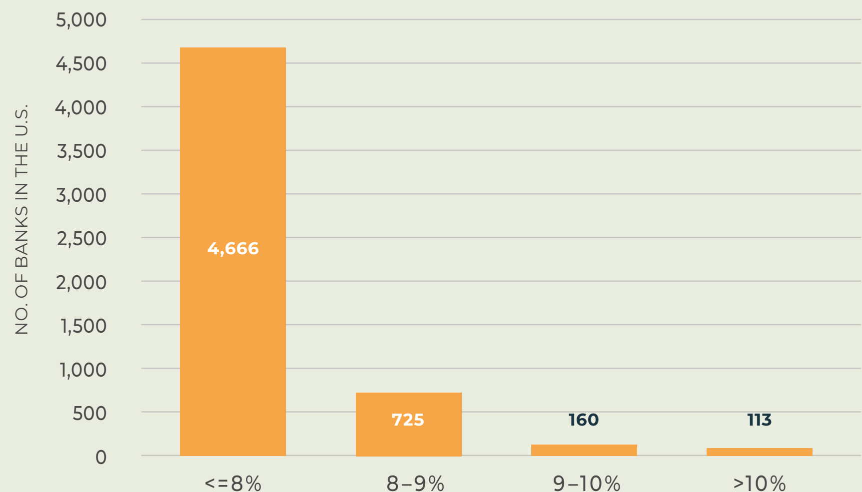
Those banks that understand this and take that approach will also be the banks that have earned regulatory permission to operate with capital requirements that make more sense for their bank, and not the very expensive safe harbor of 10 percent.

Exclusive Study: Banks Don't Need More Than 8 Percent Capital Leverage Ratios

The vast majority of community banks would be severely damaged by a community bank leverage ratio requirement of 9 or 10 percent, an Invictus study has found. More than 82 percent of community banks have a strong case their requirement should be 8 percent or lower, while only 4.8 percent of banks require a ratio of more than 9 percent.

How the study was done: Invictus used BankGenome™, its powerful intelligence system, to calculate the optimal capital adequacy for all community banks. The system includes quarterly stress tests on every bank in the country driven by unique algorithms that leverage loan-level data as a proxy for regional lending trends. The BankGenome™ stress tests estimate optimal capital requirements for each bank based upon its unique mix of assets, business models, earnings strength, and asset quality profile.

Breakdown of Customized Leverage Ratio Requirements Per BANKGENOME™



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EACH ISSUE BANK INSIGHTS REVIEWS NEWS FROM OR ABOUT REGULATORS TO GIVE PERSPECTIVE ON REGULATORY CHALLENGES.

10 Percent Capital Should Be the Norm: Hoenig

Rolling back post-crisis capital standards on the largest banks is a big mistake that will "undermine the long-term resilience of not only the banking system, but the broader economy as well," outgoing FDIC Vice Chairman Thomas M. Hoenig warned in a **speech** at the Peterson Institute for International Economics in Washington, DC. Hoenig repeated his call for a capital ratio of 10 percent equity to total assets as "the minimum standard for every bank wishing to operate in the United States." He said studies show stronger bank capital contributes to a more sustainable economic growth, despite widespread views to the contrary. "The failure to better understand the nature and disparate effect of regulations on the industry will be to increase the costs of banking and encourage ever-greater consolidation of the industry," he said.

New Fed Supervisory Chair: No "Gotcha" Regulation

Fed Vice Chair of Supervision Randal K. Quarles is responsible for developing policy recommendations regarding supervision and regulation. It's a role that was established under Dodd-Frank, but never officially filled. (Former Fed Governor Daniel Tarullo largely was the voice of regulation under the Obama administration). In recent speeches, Quarles has given a hint of how he views his role: "Put simply, our role as supervisors should not be to play "gotcha" with our banks, but to support their compliance efforts," **he said in March** at the HOPE Global Forums annual meeting in Atlanta.

In January, after three months on the job, **Quarles said** he wanted to review the efficiency of regulation to make sure costs were outweighed by benefits. "In other words, if we have a choice between two methods of equal effectiveness in achieving a goal, we should strive to choose the one that is less burdensome for both the system and regulators," he told the American Bar Association Banking Law Committee Annual Meeting in Washington, D.C. He also said he didn't believe that tailoring regulation should be solely for small firms, and that stress testing supervisory disclosures should "go further."

Supervisory Exams to Improve

Look for communication to improve with your safety and soundness examiner. Beyond tailoring exams based on risk, regulators are working on guidelines to make sure that regulators communicate their objectives "before, during and after examinations," the Federal Financial Institutions Examination Council (FFIEC) **announced**. That means letting banks know how to prepare for what examiners want, including spacing needs, staffing and logistics. Regulators are also exploring ways to use technology to shift exam work off-site and to improve electronic file transfers.

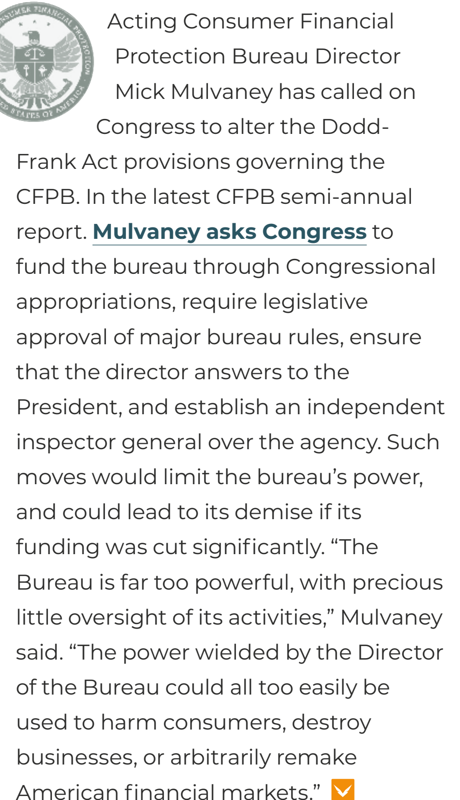
Fed to Streamline Appeals Process

Troubled banks will have a better chance of getting a material supervisory determination appealed faster under **new rules** proposed by the Fed. The proposed rule would eliminate one level of appeal, and also speed up appeals about issues that would cause an institution to be critically undercapitalized and in need of a receiver.

U.S. Regulatory Structure Inhibiting Fintechs

One reason fintech innovation may be outpacing the U.S. overseas is because the U.S. regulatory structure is a challenge for fintech firms, the Government Accountability Office concludes in a **new study**. While some U.S. agencies have established innovation offices, others — including the FDIC and the NCUA — have not. Regulatory sandboxes and proofs-of-concept are rare in the U.S., but more common internationally. Agencies need to collaborate more, which will not only encourage fintech firms but also allow for proper oversight to protect consumers, the GAO reported.

CFPB Too Powerful, Needs Accountability: Acting Director



Acting Consumer Financial Protection Bureau Director Mick Mulvaney has called on Congress to alter the Dodd-Frank Act provisions governing the CFPB. In the latest CFPB semi-annual report. **Mulvaney asks Congress** to fund the bureau through Congressional appropriations, require legislative approval of major bureau rules, ensure that the director answers to the President, and establish an independent inspector general over the agency. Such moves would limit the bureau's power, and could lead to its demise if its funding was cut significantly. "The Bureau is far too powerful, with precious little oversight of its activities," Mulvaney said. "The power wielded by the Director of the Bureau could all too easily be used to harm consumers, destroy businesses, or arbitrarily remake American financial markets."