

February 11, 2020

Ann E. Misback
Secretary
Board of Governors of the Federal Reserve
System
20th Street and Constitution Avenue, N.W.
Washington, D.C. 20551
Docket No. OP-1681

Robert E. Feldman
Executive Secretary
Attn: Comments
Federal Deposit Insurance Corporation
550 17th Street, N.W.
Washington, D.C. 20429
RIN 3064-ZA08

Re: Comments of Bruce Cahan, Lecturer in Stanford University Department of Management Science and Engineering and CEO of Urban Logic, Inc., a New York nonprofit organization, regarding the agencies' Request for Information on Application of the Uniform Financial Institutions Rating System

Ladies and Gentlemen:

This Comment addresses Questions 7 – 10, asked by the Federal Reserve and FDIC, on their own behalf and on behalf of their federal and state regulatory partners (collectively **Regulators**). This Comment amplifies such Questions and puts in their ramifications in the context of industry and public transparency and trust.

CAMELS Consistency Cannot Be Assessed Without Transparency

The CAMELS ratings of individual institutions are secret, known only to the individual bank and the regulators assigning the ratings. How individual Federal or State Regulators assign CAMELS ratings, pursue steps for improving bank safety and soundness in semantically similar situations, and how they apply penalties (such as Cease and Desist or Consent Orders) is unknown publicly.

Without transparency as to which institutions had historically inadequate CAMELS ratings, what mitigations were ordered and what resulting CAMELS ratings history emerged, in the context of regional and national macro-economic forces, neither Regulators nor bank investors, nor banks serving as counter-parties nor the financial system, as a whole can adequately judge and apply pressure to improve the management decisions of CAMELS-vulnerable individual banks or groups of banks.

CAMELS Secrecy is an Anachronism in the Digital Age

CAMELS was created in the pre-Internet Age but its secrecy ill suits current digital commerce, communications and banking. The justification for CAMELS secrecy being limited to “those who need to know” might once have reasoned that were adverse CAMELS ratings known publicly then the vulnerable bank would fail due to a lack of confidence rather than a true

failure of its safety and soundness, which would result in FDIC prematurely putting the bank into receivership, depleting the deposit insurance fund more than otherwise. However, in the Digital Age, with business media outlets following and investigating bank safety, soundness and management on a 24x7 basis, the chance that rumor of bank illiquidity or other losses could replace regulatory judgment in spreading misinformation is at least as great a risk as informing the public of how banks are rated.

Were we discussing drug or food safety instead of bank safety, no one would expect or permit the FDA: Food and Drug Administration or the U.S. Department of Agriculture to delay notice to the public that a particular medication or treatment is hazardous or judged no longer fit for humans.

Were we discussing product safety of automobiles, airplanes, railroads or other consumer or industrial products, no one would expect or permit the Consumer Product Safety Commission, the FAA: Federal Aviation Administration, the National Transportation Safety Board or other regulatory agencies to withhold or delay notice that the private sector company or its product is unsafe for use in interstate commerce.

That Regulators' ratings of bank safety and soundness remain secret after the 2008 Finance Crisis is an anachronism that can and should be remedied.

My CAMELS Estimates

Being a Lecturer in the School of Engineering at Stanford University and an Ashoka Fellow working on socially-responsible financial technologies (fintech) through my nonprofit Urban Logic, I decided to try to "reverse engineer" the secret CAMEL rating using publicly available data from the FFIEC: Federal Financial Institutions Examination Council.

On Appendix 1 are *my unofficial estimates* of the CAMELS ratings history for several national and regional banks. On Appendix 2 are the weightings applied to FFIEC variables to arrive at such estimates. In order to avoid any confusion with the Official CAMELS Ratings' the 1 through 5 scale, Appendix 1 shows a 1 through 4 scale for the illustrative banks, and Systemic Risk (the "S" in CAMELS) as deliberately omitted from this analysis.

Whether my weightings are correct in reflecting the historical trends in how Regulators assign CAMELS weightings to failed, merged and operating banks is not relevant to answer the Questions posed in Federal Reserve Docket No. OP-1681. What is relevant is that, given the public availability of the FFIEC data, anyone could conjecture what the true CAMELS ratings are, and could speculate on bank stocks and bonds accordingly, thereby either (1) destabilizing the liquidity of banks mis-labeled as having vulnerable CAMELS ratings, or (2) overly capitalizing unsafe banks.

My Suggestion for CAMELS Transparency

Since CAMELS estimates are vital for healthy market function, I suggest that the Regulator's official ratings be made public on a lagging two quarter basis. Over time, this six-month lag would allow building financial risk models so that financial rating services like Fitch, Moody's and Standard and Poor's, and the financial market could use ratings from credible official sources to price bank risk and health in buying, selling and hedging financial instruments issued by or in relation to bank operations.

To be most useful for comparability purposes, CAMELS ratings should be available back to the bank's first CAMELS rating. Such industry-wide CAMELS history would permit university and public interest researchers, as well as bank and industry professionals, to better contextualize what macroeconomic, management, portfolio composition and other challenges trigger CAMELS variability for banks of the same peer group or operating in the same region or serving similar demographic groups of bank borrowers. Improved insights into why CAMELS responds retroactively as it does will permit improving the methodologies for assessing bank safety and soundness, and creating a more holistic approach to bank regulation in light of the Regulators', policymakers' and the public's growing expectations for, and dissatisfactions with, banks.

Future Bank Customers are the “Show Us” Generations

For anyone born after 1990, the Great Recession of 2008 evokes a memory of bank failures and the economic, political and social mistrust in bank safety and soundness. While Dodd Frank and subsequently passed and eased regulations acknowledged and tightened the reasons for distrust in bank safety and soundness, the secrecy of CAMELS remains a vulnerability.

Millennials and subsequent generations born into the Digital Age are necessarily the “show us” generations. Through their mobile phones they are buffeted by a blizzard of information. During recessions they hear about “bank stress tests” but never get to contextualize CAMELS beforehand or afterwards. If Regulators want future generations of bank customers to trust banks and bank Regulators, they need the financial literacy of understanding how CAMELS is calculated, what it means and how their choices of bank and banking decisions affect the banking system's safety and soundness. Hiding CAMELS from these “show us” generations is hiding the ball – a consistent rating – by which to judge what is and isn't trustworthy.

50% of CAMELS Reflects Non-Performing Loans (NPLs)

It might seem axiomatic that a large part of CAMELS' bank safety and soundness reflects, and should reflect, whether the bank makes loans that borrowers repay. In my estimate of CAMELS, NPLs are weighted 50%.

So if CAMELS were transparent and the public understood that banks can't afford to make loans that aren't repaid, one might expect that banks would reduce lending directly the riskiest borrowers. Such lending might not be considered “banking” but rather take other

forms regulated as charity, peer-to-peer finance or as a cooperative whereby needy persons are able to borrow cheaper and consistently than the severe interest rate pricing and seasonality that banks and non-banks offer subprime borrowers. Thus, if Regulators want banks to avoid high NPLs, Regulators must provide a laboratory or other settings for innovation through which to experiment with fintech that serves the demographic or situational groups of borrowers that banks must necessarily avoid.

Proposing a Teaching Hospital for Responsible Bankers and Banking

A second corollary of CAMELS weighting NPLs so heavily (50% by my estimate) is that Regulators must encourage and be open to innovation in how bankers restructure loans and remediate the causes in the borrowers' lifecycle that result in NPLs. For this reason, my nonprofit, Urban Logic, is researching forming a teaching hospital setting for bankers [GoodBank™(io)].

Nearly three centuries ago, physicians created “teaching hospitals” in order to clinically observe, record, report and improve the outcomes of medical diagnosis, treatment and prognosis. It is absurd that banking has no analogous “teaching hospital” setting by which to train bankers and bank staff in assuring that the products and services offered improve the financial health and wellness of bank customers. Today, we graduate medical students from medical school and send them to teaching hospitals before permitting them to treat patients.

By contrast, today, we graduate bankers from business schools and somehow expect them to invent lending products without harming bank customers. By the same logic as the Hippocratic Oath serves to improve medical science and engineering to research, prototype and deploy new treatments, finance needs to train future bankers (and retrain some existing bankers) in a new culture of clinical or evidence-based finance that aims to improve customer health and wellness by anticipating and mitigating lifecycle events that generic NPLs, personal bankruptcies, mental stress and other outcomes.

GoodBank would offer Regulators and the banking industry as a whole a novel setting through which to monitor lifecycle-dependent financial vulnerability and responsible banking solutions. While it is beyond the scope of this Federal Reserve Docket No. OP-1681, persons interested in GoodBank are welcome to contact me for further information.

At Stanford University, I have created and teach a number of courses that might prepare bankers to work in a bank like GoodBank, including *Sustainable Banking* (CEE 244A), *Understanding the Buy Side of Wall Street* (MS&E 449), *Ethics of Finance and Financial Engineering* (MS&E 148) and *Redesigning Pre- and Post-Disaster Finance* (d.school). I want my students and others who see and sense that banking must be a clinically predictable force for good to have a bank where that is their primary mission, both because it's the right thing to do, and it's how to reduce NPLs.

I thank the Federal Reserve and the FDIC for this opportunity to comment on CAMELS, its secrecy and how to improve its functional value and use.

Sincerely,

A handwritten signature in black ink that reads "Bruce Cahan". The signature is written in a cursive, flowing style.

Bruce Cahan

Stanford University Department of Management Science & Engineering - Lecturer

President - Urban Logic® (A NY nonprofit, qualified in CA)

Profile - <https://www.linkedin.com/in/brucecahan/>

Appendix 1

Examples of Modified CAMELS Estimates for Selected National and Regional Banks

Fairly Massive Disclaimer

1. Only federal bank regulators quantify and issue definitive CAMELS Ratings.
2. Bank regulators ban banks from publicizing their CAMELS Ratings. In effect, it is illegal for a bank to say publicly when it is unsafe.
3. This leaves bank customers, investors and counter-party banks to estimate the safety and soundness of banks.
4. What follows is my estimate of CAMELS for the banks shown. My estimate may vary significantly from the banks' official CAMELS.
5. In order to avoid any confusion with the Official CAMELS Ratings' 1 through 5 scale, this Appendix 1 uses a 1 through 4 scale for the illustrative banks, and deliberately omits Systemic Risk (the "S" in CAMELS) from the analysis. Such adjustments may affect the consistency or reliability of the results shown.

Selected National Banks

Bank Name **American Express National Bank** FDIC Certificate **27471** Assets (\$1,000s) **\$116,653,380** State **UT** Report Date **12/31/2018**
CAMELS Estimate **1.10176807**

Capital Adequacy
 rbc1aaj 9.90152#
 rbc1rwaj 12.08256#
 rbcrcwaj 14.18242#
 eqv 9.99372#

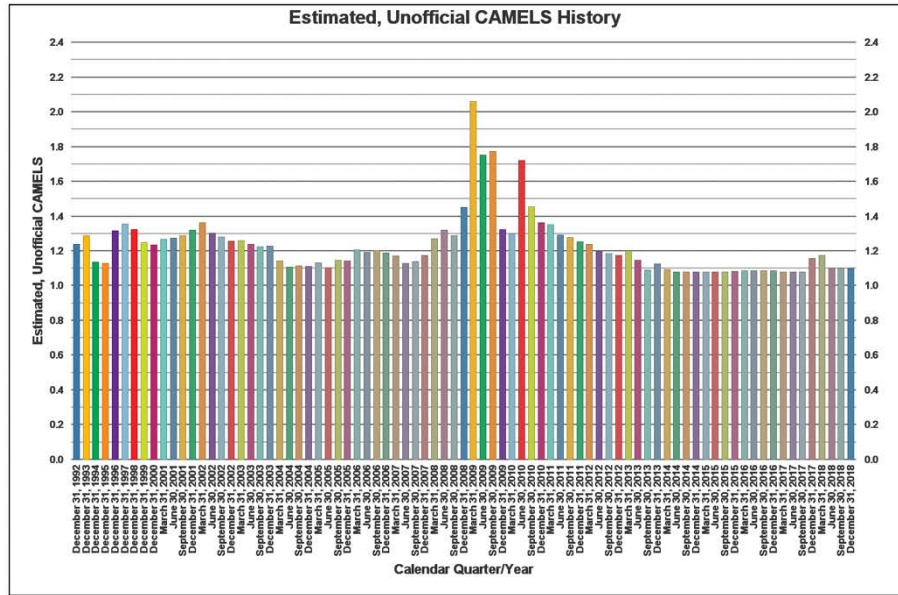
Asset Quality
 nperfv 0.62247#
 ncnlnsr 0.77269#
 orepcr 0.00000#

Management
 nimy 7.12611#
 eeifr 58.70723#

Earnings
 roa 4.74956#
 roe 45.99440#
 noijy 4.75036#

Liquidity
 sc_pct 1.67597#
 vollab_pct 7.64792#

Systemic Risk



Bank Name **Bank of America, National Association** FDIC Certificate **3510** Assets (\$1,000s) **\$1,782,639,000** State **NC** Report Date **12/31/2018**
CAMELS Estimate **1.13713721**

Capital Adequacy
 rbc1aaj 8.71527#
 rbc1rwaj 12.53890#
 rbcrcwaj 13.53783#
 eqv 11.65228#

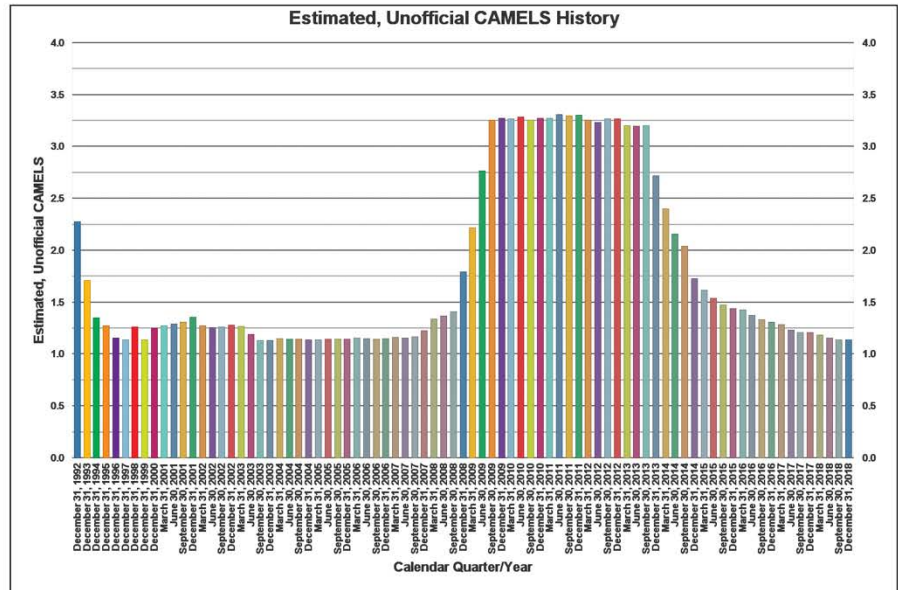
Asset Quality
 nperfv 0.49169#
 ncnlnsr 0.89439#
 orepcr 0.02003#

Management
 nimy 3.18082#
 eeifr 47.39771#

Earnings
 roa 1.64975#
 roe 14.17116#
 noijy 1.64765#

Liquidity
 sc_pct 23.48103#
 vollab_pct 10.33766#

Systemic Risk



Bank Name
Bankers Trust Company

FDIC Certificate
953 Assets (\$1,000s) \$4,512,819 State IA

Report Date 12/31/2018
 CAMELS Estimate 1.14032224

Capital Adequacy

rbc1aaj 9.55705#
 rbc1rwaj 9.95754#
 rbcrwaj 11.20824#
 eqv 9.43344#

Asset Quality

nperfv 0.49306#
 ncnlnsr 0.52208#
 orepect 0.05533#

Management

nimy 3.43884#
 eeifr 54.49554#

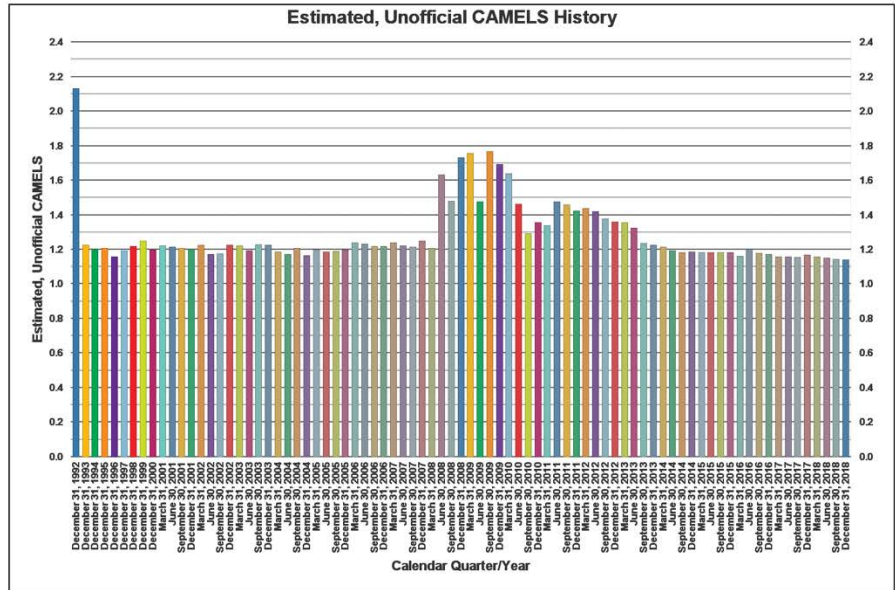
Earnings

roa 1.30201#
 roe 14.97281#
 noiyy 1.30578#

Liquidity

sc_pct 11.97730#
 voliab_pct 15.75306#

Systemic Risk



Bank Name
Citibank, National Association

FDIC Certificate
7213 Assets (\$1,000s) \$1,406,717,000 State SD

Report Date 12/31/2018
 CAMELS Estimate 1.14012657

Capital Adequacy

rbc1aaj 9.38801#
 rbc1rwaj 12.74519#
 rbcrwaj 15.06821#
 eqv 10.51718#

Asset Quality

nperfv 0.39752#
 ncnlnsr 0.84326#
 orepect 0.00618#

Management

nimy 3.38041#
 eeifr 50.93496#

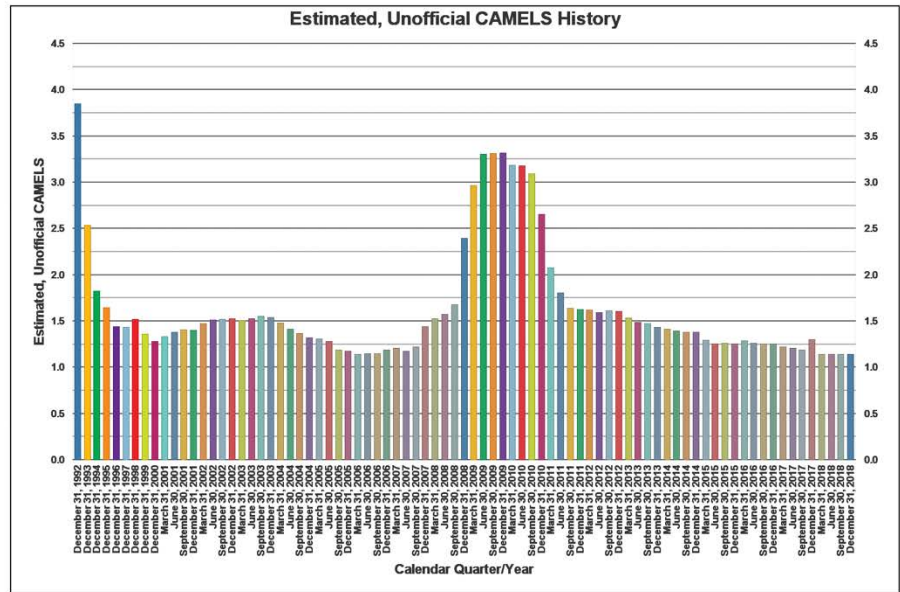
Earnings

roa 1.18056#
 roe 11.35028#
 noiyy 1.17493#

Liquidity

sc_pct 22.99930#
 voliab_pct 51.47660#

Systemic Risk



Bank Name
Goldman Sachs Bank USA

FDIC Certificate
57485 Assets (\$1,000s) \$23,412

State **UT**

Report Date **12/31/2004**
 CAMELS Estimate **1.44232839**

Capital Adequacy

rbc1aa# 95.02189#
 rbc1rwaj 402.28924#
 rbcrwaj 402.28924#
 eqv 94.39604#

Asset Quality

nperfv 0.00000#
 nclnlsr
 orepct 0.00000#

Management

nimy 1.17178#
 eeifr 326.23574#

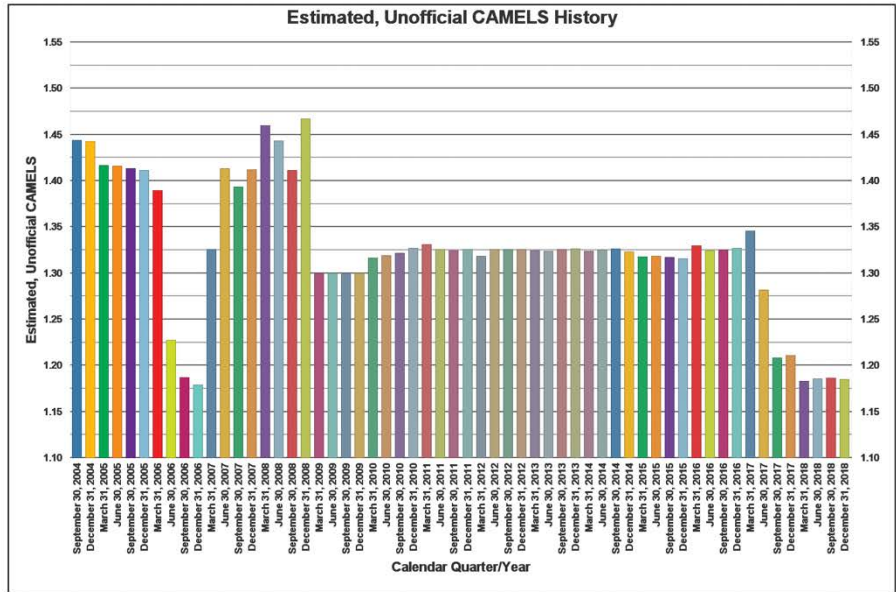
Earnings

roa -1.57764#
 roe -1.65572#
 noijy -1.57764#

Liquidity

sc_pct 97.87716#
 voliab_pct 38.33841#

Systemic Risk



Bank Name
JPMorgan Chase Bank, National

FDIC Certificate
628 Assets (\$1,000s) \$2,218,960,000

State **OH**

Report Date **12/31/2018**
 CAMELS Estimate **1.20476508**

Capital Adequacy

rbc1aa# 8.55340#
 rbc1rwaj 13.88925#
 rbcrwaj 14.72256#
 eqv 9.65425#

Asset Quality

nperfv 0.49005#
 nclnlsr 1.06109#
 orepct 0.01541#

Management

nimy 2.37780#
 eeifr 61.21273#

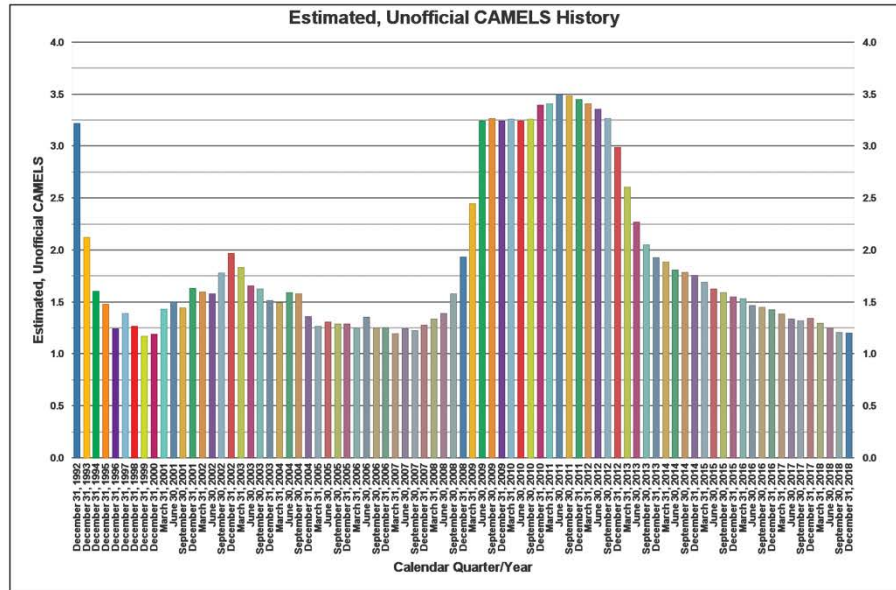
Earnings

roa 1.18185#
 roe 12.04760#
 noijy 1.17960#

Liquidity

sc_pct 11.72040#
 voliab_pct 26.89796#

Systemic Risk



Bank Name
Wells Fargo Bank, National Association

FDIC Certificate
3511

Assets (\$1,000s) \$1,689,351,000

State SD

Report Date 12/31/2018
 CAMELS Estimate 1.32840964

Capital Adequacy

rbc1aaj 8.63647#
 rbc1rwaj 12.36227#
 rbcrwaj 14.15530#
 eqv 9.76120#

Asset Quality

nperfv 0.94557#
 ncInIsr 1.66037#
 orepct 0.02705#

Management

nimy 3.22700#
 eeifr 60.12958#

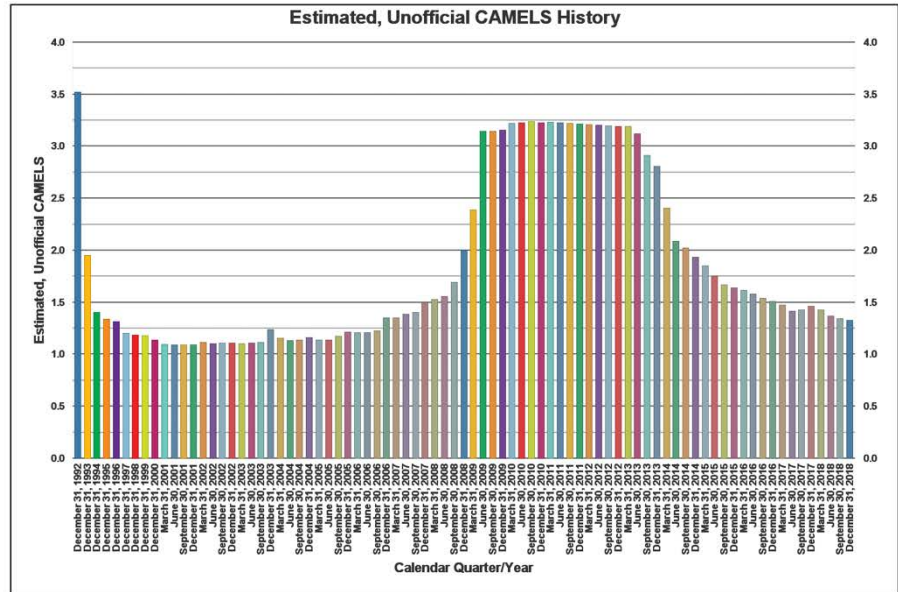
Earnings

roa 1.27551#
 roe 13.16642#
 noIjy 1.27044#

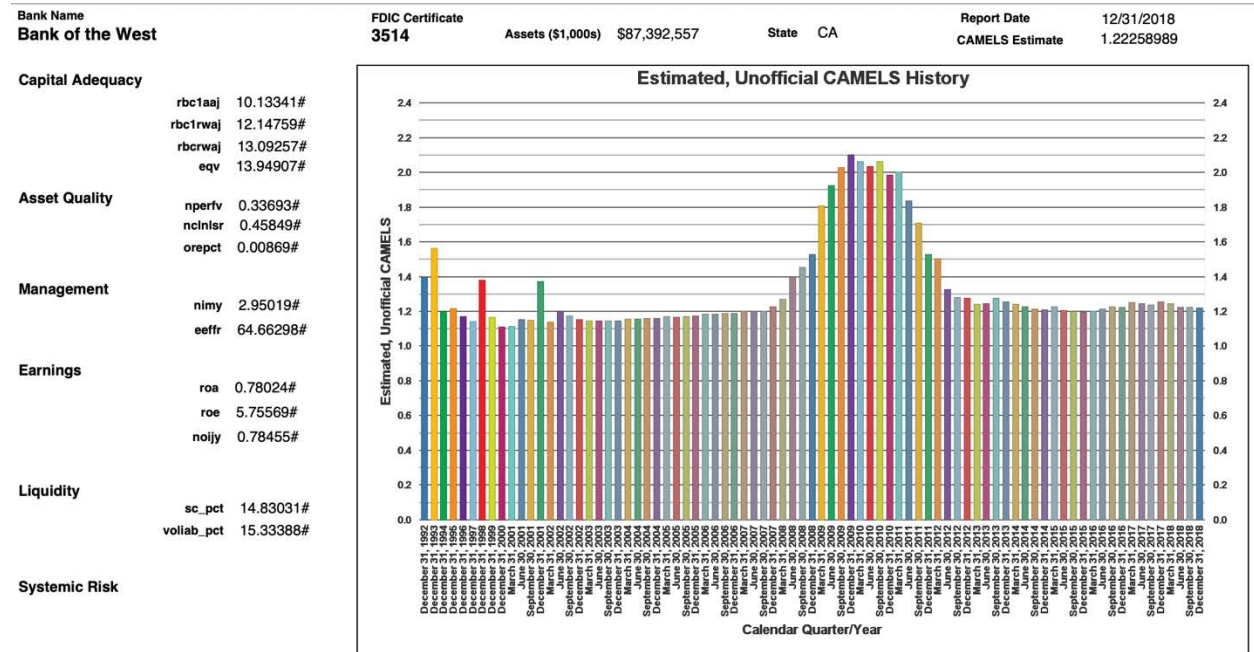
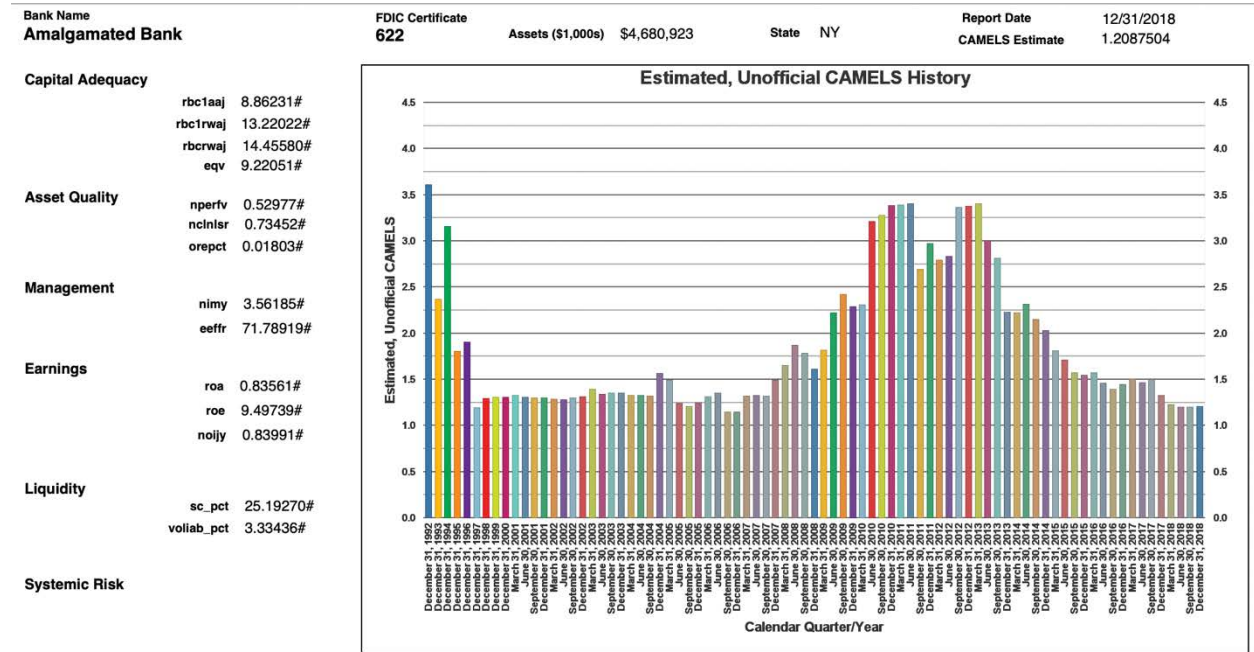
Liquidity

sc_pct 23.66560#
 vollab_pct 10.79326#

Systemic Risk



Selected Community and Regional Banks



Bank Name
City National Bank

FDIC Certificate
17281

Assets (\$1,000s) \$50,703,918

State CA

Report Date 12/31/2018
CAMELS Estimate 1.15344461

Capital Adequacy

rbc1aaj 8.32801#
rbc1rwaj 10.78459#
rbcrwaj 13.15965#
eqv 8.98142#

Asset Quality

nperfv 0.21177#
ncnlshr 0.29956#
orepct 0.00000#

Management

nimy 3.48067#
eeffr 59.91987#

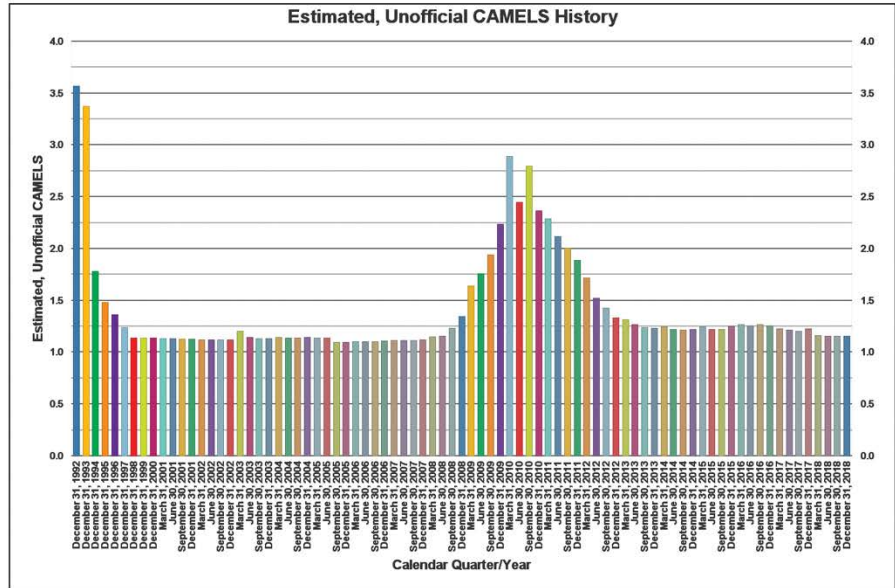
Earnings

roa 1.26601#
roe 14.66911#
noijy 1.26573#

Liquidity

sc_pct 19.59272#
volliab_pct 7.91999#

Systemic Risk



Bank Name
Green Bank, National Association

FDIC Certificate
35007

Assets (\$1,000s) \$4,393,019

State TX

Report Date 12/31/2018
CAMELS Estimate 1.29568766

Capital Adequacy

rbc1aaj 10.83227#
rbc1rwaj 12.25552#
rbcrwaj 13.12427#
eqv 12.26530#

Asset Quality

nperfv 1.34536#
ncnlshr 1.71777#
orepct 0.01386#

Management

nimy 4.07391#
eeffr 45.35507#

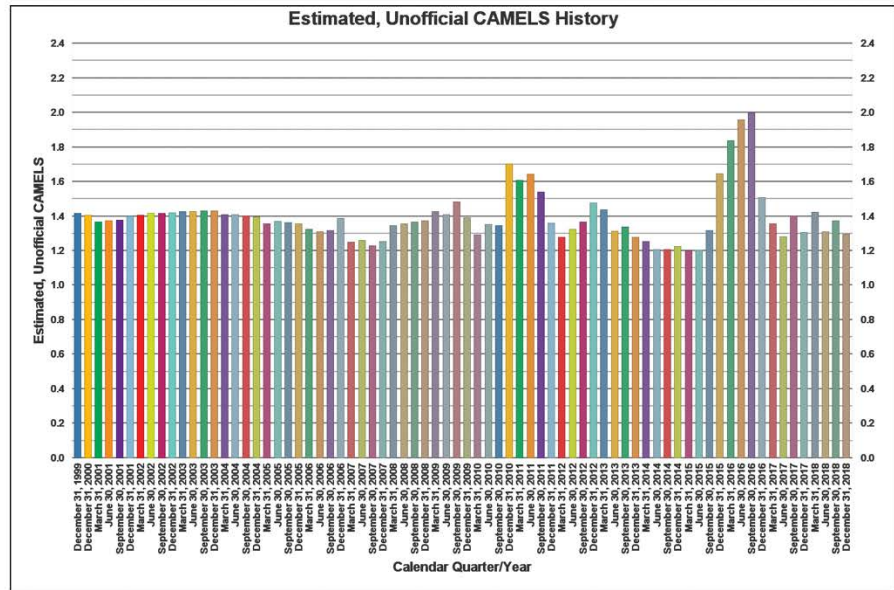
Earnings

roa 1.58425#
roe 13.45397#
noijy 1.58748#

Liquidity

sc_pct 15.30863#
volliab_pct 23.53333#

Systemic Risk



Bank Name
Silicon Valley Bank

FDIC Certificate
24735

Assets (\$1,000s) \$56,139,644

State CA

Report Date 12/31/2018
CAMELS Estimate 1.11287735

Capital Adequacy

rbc1aa# 8.10360#
rbc1raw# 12.41020#
rbcraw# 13.31599#
eqv 8.11336#

Asset Quality

nperfv 0.17119#
ncInlr 0.33914#
orepct 0.00000#

Management

nimy 3.68491#
eeftr 45.05887#

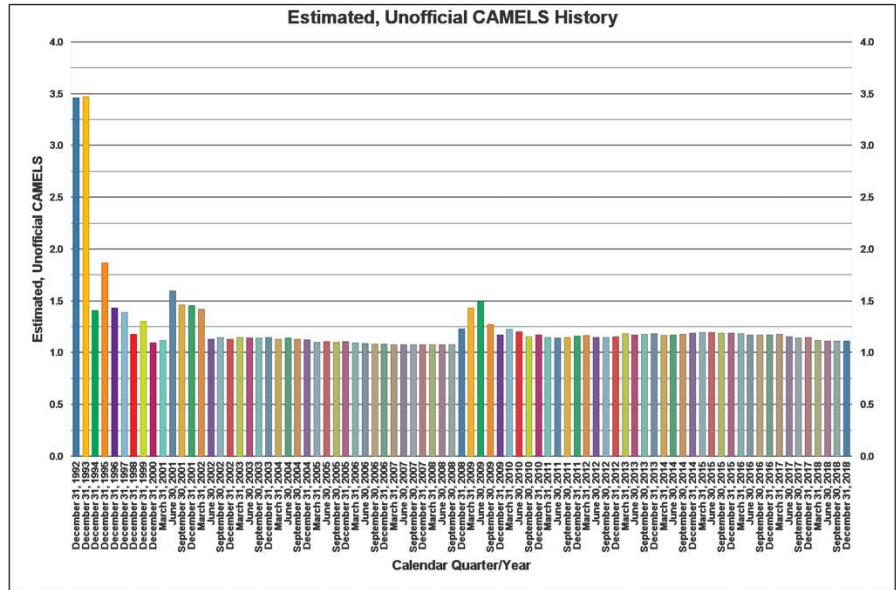
Earnings

roa 1.71420#
roe 22.71959#
noljy 1.71520#

Liquidity

sc_pct 41.10775#
vollab_pct 10.76772#

Systemic Risk



Appendix 2

Weightings of FFIEC Ratios to Estimate Modified CAMELS Ratings

- Capital Adequacy 30%
- Asset Quality 55%
- Management 5%
- Earnings 5%
- Liquidity 5%
- Systemic Risk [excluded from illustrative analysis]

