INDICATORS OF COMMUNITY BANK SENTIMENT

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Over the past 30 years, the number of independent banking institutions in the U.S. has dwindled from around 14,000 to fewer than 5,000 banks (FDIC Table CB01). In the process, the industry has consolidated to the point where just 0.2 percent of the banks hold over 65 percent of all bank assets.

Still, most banks are community banks (FDIC definition[1]), and many counties rely on community banks alone. Community banks have over 50,000 physical locations around the United States, providing the only banking services in 20 percent of the nation's counties[2].

Given the indispensable role community banks play nationwide, concern has grown about how continued consolidation will impact credit availability and local economies. The National Federation of Independent Business has found in its surveys of its hundreds of thousands of member firms that "Knows me and my business" is the number one priority in a banking relationship for small business owners, and a feature not reported as important for customers of mega banks[3]. Almost 60 percent of all insured banks have under $250 million in assets and make about half of all loans to small businesses[4].

The economic health of these institutions is essential to the communities they serve, and a community bank's vitality depends on how they perceive their market, how willing the bank is to grow and how likely it will allocate resources to support local business activity.

The most recent survey conducted by the Conference of State Bank Supervisors (CSBS) offers an exclusive look into the current environment for community banks and the issues they face, as well as prospects for products and services, regulation, and the community banking industry.

The comprehensive nature of the CSBS 2018 National Survey of Community Banks provides a starting point for establishing an overall sentiment index of community bankers. This paper takes a preliminary look at how such an index could be constructed.

[1] https://www.fdic.gov/regulations/resources/cbi/study.html.
[2] ICBA, https://www.icba.org/go-local. Independent Community Bankers of America.
[3] "Small Business and Banks: The United States", William J. Dennis, William C. Dunkelberg, Jeffrey S. VanHulle, 1988, the NFIB Foundation, Washington, D.C.
[4] As of the second quarter, 2018, there are 4,833 insured banks, 2,722 have assets under $250 million.
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Structure and Computation of Sentiment Indicators

Survey responses to questions about regulations, competition, economic conditions and market prospects are combined to form an Indicators of Community Bank Sentiment (ICBS).

Responses to questions in the list below form the core of the indicators included in the analysis (the source question is identified in Appendix A).

ICBS Components and explanation of the impact on the analysis:

Q6: Percent easing terms due to competition

> If the level of competition forces the bank to weaken its loan terms, this is a difficult environment for the bank and its shareholders (although for the entire economy, competition is a good thing), negatively impacting the analysis.

Q7: Percent concerned about competition from out-of-market banks

> If the source of competition for small business loans primarily comes from lenders outside of the local market, the response negatively impacts the analysis. These are typically branches of very large banking institutions, “fintech” and mortgage lenders.

Q9: Percent adding new services, products

Q9: Percent eliminating/reducing services, products

Q9: Percent adding new services because of expanding market

Q9: Percent eliminating services because of weakening market

> Adding new products is positive. Eliminating produces and services negative. If the reason for exiting a product or services is a contracting local market, this is a negative in the analysis. If products or services are being added because of an expanding market, the impact is positive.

Q13: Percent viewing new technology as important to meet customer demand

> Viewing the use of new technology (Q13) as good as “important” or “very important” is a positive contribution to the analysis.

Q14: Percent viewing technology leadership as important to meet customer demand

> Viewing technology leadership to meet customer demands as “important” or “very important” is a positive contribution to the analysis.

Q21: Percent receiving and seriously considering a merger offer

> Choosing to become part of a larger or stronger bank usually reflects a less than excellent performance.

Q23: Percent of banks making an offer to acquire another institution

> Aggressively pursuing another bank is indicative of a favorable bank market and a positive contribution to the indicators.

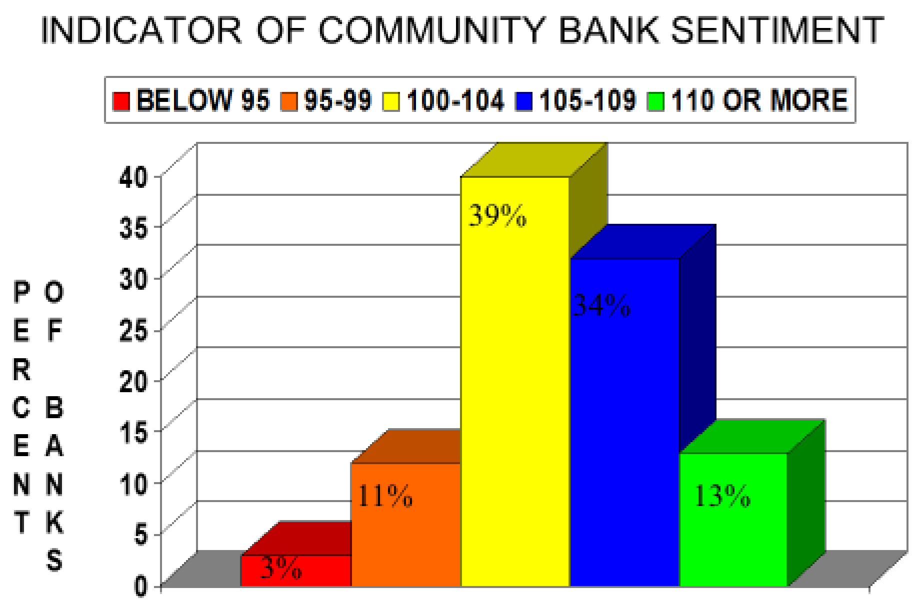
Q27: Percent seeing risk in various bank activities

> Viewing one or more bank activities and circumstances as posing a risk for the bank is a negative for the bank and the index.

Method of Calculation:

The analysis sums up the number of “positive” responses to these indicator questions and subtracts the number of responses that are “negative” about the future of the economy or the banking environment. These responses are summed over the set of questions included in the analysis and then added to 100 for presentational convenience. A more complex analysis is computed after assigning “importance weights” to several questions. Because some questions can produce large numbers of responses, each component’s contribution to the analysis is truncated at +2 and -2 (see Appendix B).

The raw Indicator ranged in value from 87 to 122 (see Chart 1). Only 3 percent of the banks scored less than 95, 40 percent were in the 100 to 104 range and 13 percent scored above 110. About 20 percent scored less than 100, indicating more concern about risk, weakening markets, regulatory trends and a reduced inclination toward expansion.



Limitations:

The analysis does not directly ask bank managers about their views of the economy but instead asks about plans for growth, reasons for decisions to grow or contract, views about regulations, market and strategic risks and about the competitive environment to create a composite measure of positioning for the future.

Sentiment Distribution in the Bank Population

Of those entertaining a merger (11 percent of all banks), 27 percent scored under 100 (Table 1)[5]. Only 7 percent of those in acquisition mode (16 percent of all banks) scored under 100. Sixty-nine percent of respondents reporting that their lending terms were under heavy competitive pressure (8 percent of all banks) scored under 100 compared to only 8 percent that reported having to competitively adjust loan terms "rarely" or "never" (Table 2). Banks that reported they were prepared to be "leaders" in tech development were twice as likely to have a score of 110 or more than banks that simply viewed the rise of technology as "important or very important" (Table 3).

Table 1: MERGE/ACQUIRE BY ICBS						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
Merger	15	12	50	19	7	11%
Acquire	7	5	25	37	24	16%
All Banks	3%	11%	39%	34%	13%	-----

Table 2: CHANGE LOAN TERMS BY ICBS						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
Adjust Often, Always	32	37	21	5	3	8%
Adjust Rarely, Never	0	8	40	34	14	86%
About Half the Time	6	25	56	3	3	6%
All Banks	3%	11%	39%	34%	13%	100%

Table 3: TECHNOLOGY LEADERSHIP BY ICBS						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
Tech Important	7	11	42	31	10	65%
Tech Leader	6	12	34	29	21	26%
All Banks	3%	11%	39%	34%	13%	-----

[5] The row percentages may not sum to 100% because of missing data. The distributions of the row variables are shown in the "All Banks" column to the far right of the tables.

Sentiment by CEO Age:

If the notion that young people are always more optimistic has any currency, it does seem to be the case for bank CEOs (Table 4). Twice as many CEOs over the age of 65 scored below 100 as those under the age of 45 (19 percent versus 8 percent) – although only five percent of the CEOs were younger than 45 (Table 4). But the correlation is clear, the older the CEO, the more likely a more pessimistic Sentiment score (scores under 100).

Table 4: ICBS and CEO AGE						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
Under 45 yrs.	4	8	44	32	12	5%
45-54	2	9	43	35	10	22%
55-64	2	12	38	38	11	49%
65+	3	19	35	30	14	24%
All Banks	3%	11%	39%	34%	13%	100%

Sentiment by Bank Size:

Larger banks (above $400 million) more frequently report a higher score (over 110) than the smallest banks (under $100 million) but also more frequently report a score between 95-99 (Table 5). There was no significant relationship between CEO age and bank size; the smallest banks have the same percent of CEOs over 65 as the very largest banks.

Table 5: ICBS and BANK SIZE						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
Under $100 (million)	3	7	46	39	5	20%
$100-$200	1	9	46	34	10	22%
$200-$400	1	14	36	37	12	23%
$400-$800	2	16	34	29	19	17%
$800+	3	14	36	32	15	18%
All Banks	3%	11%	39%	34%	13%	100%

Sentiment by Geography:

Location has a strong influence on sentiment. Banks in CMSA (Combined Metropolitan Statistical Areas) more frequently report higher sentiment readings with 54 percent reporting a score over 105 or better versus 45 percent for those banks in rural areas (Table 6).

Table 6: ICBS and URBANIZATION						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
Rural	2	12	41	34	11	83%
CMSA	1	12	33	38	16	17%
All Banks	3%	11%	39%	34%	13%	100%

Region of the country also had a mild impact on bank sentiment (Table 7). Banks in New England reported scores under 100 more frequently than other regions but also more frequently above 110. Banks in the Midwest and West more frequently reported scores between 105 and109 but less frequently above 110.

Table 7: ICBS and CSBS REGION						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
New England	2	19	35	31	14	12%
Midwest	3	10	38	37	12	32%
South	3	13	38	33	13	21%
Great Plains	1	11	45	31	12	26%
West	2	7	43	43	5	9%
All Banks	3%	11%	39%	34%	13%	100%

Sentiment by Bank Growth:

If growth is a “feel good” event, it is not apparent in the ICBS (Table 8). The percent of banks scoring over 110 is as high for banks with negative asset growth between 2017 Q2 and 2018 Q2 as it was for those with growth of 5 percent or more. Bank performance, whether measured by profitability (ROA or ROE) or growth (core deposit, asset, net income), showed no strong influence on sentiment. Although the correlations of performance with sentiment were all positive, i.e., better performance was associated with higher readings, the association was not strong.

Table 8: ICBS and ASSET GROWTH						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
Less than -.5%	1	11	35	40	13	22%
-.5% - 2.5%	3	8	49	31	10	36%
2.5% - 5%	2	14	39	32	13	22%
5% - 10%	3	18	41	27	12	11%
10% or more	2	8	35	43	12	9%
All Banks	3%	11%	39%	34%	13%	100%

Compliance Costs and Sentiment

The cost of compliance with bank regulations is a regressive tax on small banks. Compliance at large banks is more easily managed because they have established departments that specialize in the legal and technological activities required for compliance. However, few small banks can support a stand-alone legal or computer department. Compliance often requires additional costs in "lumps" larger than needed (hiring an additional accountant for example) that impairs the bottom line to a greater degree than at larger banks.

The impact of spending a relatively larger share of salary costs, data processing, accounting, legal or consulting on compliance is obvious in the ICBS (Table 9). As the percent of total costs allocated to compliance rises, the percent of banks posting a high sentiment score declines.

Table 9: ICBS and REGULATORY COMPLIANCE BURDEN % of TOTAL COSTS						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
<5%	2	10	46	26	16	16%
5% - 7.5%	0	11	35	42	11	14%
7.5% – 12.5%	2	10	46	29	13	17%
12.5% - 20%	1	9	37	44	9	15%
20%+	4	16	36	36	8	13%
Not Ascertained						25%
All Banks	3%	11%	39%	34%	13%	100%

Respondents can select a number of reasons for their responses to the questions about the actions they might take. Clearly, regulatory compliance costs would be among the possible reasons for making decisions. The number of times a respondent bank cited regulations and regulatory compliance was summed over the questions included in the survey. Twenty-nine percent had no reference to regulations as a reason for their view or action (Table 10). But 27 percent cited regulations four or more times. The number of banks scoring under 100 rises significantly with the number of regulatory references.

Table 10: ICBS and REGULATORY CONCERNS						
Sentiment>	Under 95	95-99	100-104	105-109	110+	All Banks
None Cited	0	4	40	32	17	29%
1	2	4	44	42	9	10%
2	2	11	49	29	6	11%
3	5	10	43	33	9	23%
4 or more mentions	4	22	36	23	12	27%
All Banks	3%	11%	39%	34%	13%	100%

The survey also provided open-end text responses to questions about product offering outlook, regulatory outlook and industry conditions outlook. Textual analysis software was used to transform key words into a score that was positive, negative, or zero (neutral). These forward-looking scores should be positively related to the ICBS. Unfortunately, the response rate is low (about 160 out of 513 surveys). All correlations run were positive, with the regulatory outlook correlation showing a significant association with optimism.

Sentiment and Call Report Items

Over time, the ICBS is expected to show some correlation with measures of current financial strength including profitability, growth, and capitalization. The strength of this association can give some direction for the index between the annual CSBS surveys. A very preliminary estimate of the impact of selected call report data on the current index is shown in the table below.

Better performance is associated with a higher ICBS, although current quarter net interest income growth is not significant at usual levels. The explanatory power (R^2) is low, which is to be expected in a cross-sectional analysis. Future analysis will incorporate growth and profitability trends (including lagged values) to provide a better forecast for the level of sentiment between surveys. The Beta coefficients identify the relative importance of the predictor variables. The return on equity makes the strongest contribution to explaining the Indicator, followed by the equity to asset ratio and the growth in net interest income.

Model	Coefficient	Std Error	Beta	t	Sig.
Constant	3.571	0.788		4.530	0.000
ROE	0.033	0.016	0.098	2.118	0.035
Equity/Asset (6/18)	0.094	0.054	0.080	1.731	0.084
Current quarter NII growth (YoY)	0.014	0.010	0.064	1.457	0.146
R square	0.02				
Regression F	2.692				

Limitations of the Survey

The ICBS does not measure the specific views of bank CEOs about the future and the overall banking environment (except for several open-ended questions that have a very low response rate). Rather, it infers the sentiment from the various measures of actions and assessments (e.g. risk associated with various products) made by the responding banks. A number of research organizations use more direct questions to develop measures of sentiment or optimism (University of Michigan, Conference Board, Wells Fargo small business survey and others). A set of possible questions that could be used to more directly measure the sentiment of community bank managers and create a more robust measure is shown in Appendix C. For example, the question about the outlook for the industry can be framed with responses of "better," "the same," and "worse." Similar responses can be created for profitability, expansion, etc.

Conclusion

Community banks have been a critical part of the U.S. banking system for over a century. Small and independent, they are easily overlooked as not especially important in the larger scheme of banking and finance. However, community banks are critical members of communities across the U.S. It is important to bring attention to the importance of their function in providing banking services but also as members of their communities. The Indicator of Community Bank Sentiment brings attention to conditions in their local markets and how this impacts their prospects for growth and participation in their communities.

We believe the development of a measure to indicate the sentiment of community banks will provide valuable insights into the outlook of community banks and the economy. We will be working with the CSBS over the next few months to develop questions for the national survey of community banks that will more effectively provide the sentiment of community banks.

We welcome comments on this paper and the development of an ongoing index. Comments can be sent to comments@csbs.org.

APPENDIX A: CSBS QUESTIONS INCLUDED IN THE ICBS

QUESTIONS FOR THE ICBS

6. Please indicate how often, in 2017, competition from other lenders has caused you to ease the lending terms on small business loans in the following ways:

A. Lowering interest rate
B. Extending maturity
C. Reducing collateral requirements
D. Lowering fees
E. Allowing more borrower leverage
F. Requiring fewer covenants
G. Other [Please explain]

7. Where does the competition for small business loans primarily come from? (Applies to both bank and nonbank lenders.)

A. Lenders with a headquarters in our market
B. Lenders with branches or satellite offices, but no headquarters, in our market
C. Lenders with neither a headquarters nor any branches or satellite offices in our market

9. Please indicate your institution's intentions in regards to the following financial products or services:

(A) Product or Service	(B) Currently offer and will continue to offer	(C) Currently offer but plan to exit or substantially limit in next 12 months	(D) Do not offer and do not plan to offer in next 12 months	(E) Do not offer but plan to offer in next 12 months
1-4 family fixed rate mortgages				
1-4 family adjustable rate mortgages				
Home equity loans				
Reverse mortgages				
Construction loans				

Other Commercial Real Estate loans				
Student loans				
Automobile loans				
SBA loans				
Small-dollar unsecured loans				
Online loan applications				
Online loan closing				
Automated loan underwriting				
Electronic bill presentment or payment				
Mobile banking				
Stored value / prepaid cards				
Credit cards				
Cash management services				
Remote deposit capture				
Interactive Teller Machines (ITMs)				
Payroll cards				
Money remittance services				
Health Savings Accounts (HSAs)				
Insurance (life, accident, health)				
Wealth management services				
Personal financial management tools				

Which of the following most accurately describes the reason for **exiting** ___________ in the next 12 months?

A. Contracting market
B. Competition in market is intensifying
C. Lack of profitability
D. Match the competition
E. Increase in regulatory cost
F. Other [Please explain]

Which most accurately describes the reason for **entering** ___________ in the next 12 months?

A. Expanding market
B. Competition in market is weakening
C. Profitability
D. Match the competition
E. Decrease in regulatory cost
F. Other [Please explain]

13. How important is adoption of new or emerging technologies to meet customer demand in your market?

1 = 'Not Important'
2 = 'Slightly Important'
3 = 'Moderately Important'
4 = 'Important'
5 = 'Very Important'

14. How important is it to be a leader in new or emerging technology adoption to meet customer demand in your market?

1 = 'Not Important'
2 = 'Slightly Important'
3 = 'Moderately Important'
4 = 'Important'
5 = 'Very Important'

20. What regulatory trends do you find to be the most encouraging or discouraging?:

[Open ended]

21. Have you received and seriously considered accepting an acquisition or merger offer in the last 12 months?

23. Have you made an offer to a target institution in the last 12 months?

27. How important are the following risks facing your bank today?

A. Credit
B. Market
C. Liquidity
D. Cybersecurity
E. Management Succession
F. Board Succession
G. Operational (excluding Cybersecurity and Succession)
H. BSA
I. Consumer Compliance/Fair Lending
J. Compliance (excluding BSA and Consumer)
K. Legal (excluding Compliance)
L. Other [Please specify]

28. What do you think the community banking industry will look like in five years with respect to size, location and products and services offered?

[Open-ended]

APPENDIX B: INDEX QUESTION WEIGHTINGS

	INDEX OF COMMUNITY BANK OPTIMISM		MAX	INDEX			
Q#	COMPONENT	SCORE	POINTS	WEIGHT			
6	LEVEL OF COMPETITION- 7 TERMS	-1 point if response is 4,5 +1 if 1,2	-7 or +7	truncate at -2, +2			
9	PLAN OFFER, ELIMINATE UP TO 26 ITEMS	+1 for each add, -1 for each exit	+26 or -26	+2 if expanding 11,12,13,20, truncate at +3			
9	EXIT REASON = CONTRACTING MARKET	-1 for code 1 contracting mkt	-26	truncate at -2			
9	ADD REASON = EXPANDING MARKET	+1 for code 1 expanding mkt	26	truncate at 2			
13	NEW TECHNOLOGY	+1 for important or very important	1				
14	LEADER IN NEW TECH	+1 for important or very important	1				
7	COMPETITION FROM OUTSIDE BANKS	-1 if headquarters out of market	-1				
21	MERGE FIRM	-1 if considering merger	-1				
23	ACQUIRE ANOTHER BANK	+2 if yes	2				
27	RISK FOR PRODUCT/SERVICE VERY HIGH	-1 for each issue "very important"	0 to -12	truncate at -2			

APPENDIX C : ADDITIONAL SENTIMENT QUESTIONS

PROVISIONAL INDEX
Conceptually the Index should capture the major factors that shape the view of bank management about the banking environment and prospects for the future. Those include prospects for:

Economic conditions in their bank's markets
Monetary Policy
Financial market conditions
Regulations and compliance costs
Competition
Profitability
Capital spending
Growth and Expansion
Taxes

Will business conditions in your market 12 months from now be better or worse than they are today? ___Better ___Same __Worse _____ Don't Know

Will Federal Reserve monetary policy be ___Tighter ___ Same ___ Looser than in the current period 12 months from now?

Overall, 12 months from now, will the regulatory burden on your Bank be heavier or easier than today? ___Heavier ____ Same _____Easier _____Uncertain

Over the next twelve months, do you plan to make any capital expenditure to improve bank facilities or operations? _____ Yes ____No ____Don't Know

What types of expenditures do you plan? [Check all that apply]
___ Expand existing facilities ____Lease?
___ Add new facilities ____Lease? ____Acquire/Merger?
___ Computer/Router/Server ____Lease? ____Outsource?
___ Major Software Systems ____Lease? ____Outsource?
___ Renovations

Approximately how much do you think this will all cost? $________

Overall, is the current period a good time to expand your Bank's operations?
______Yes ____No _____Unsure

Twelve months from now, do you expect that your Bank's profits, ROA or NIM will be higher or lower than they are in the current period? ____Higher ____Same ____Lower _____Uncertain

Why? _____Financial markets and interest rates _____Operating Costs _____ Loan Demand _____Regulatory costs

A provisional sentiment index (PI) will be constructed using appropriate information in the 2019 survey by identifying existing questions in 2018 that approximate the conceptual structure for the Index.

OTHER QUESTIONS

What is the single most important problem facing your Bank today?
____Regulation _____Competition _____Cost of Technology _____Weak Business Conditions _____ Weak Loan Demand _____High Cost of Money

[could rank these 1 most important to 6 least important]