

Funding in Focus

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Agenda

- 1** Performance Over Last Decade
- 2** Opportunities, Risks of Rising Rates
- 3** Mobile Banking Update
- 4** Outlook

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Fundamental Environment Improving

- Credit costs are poised to rise off favorable levels but the credit cycle showing some legs
- Loan growth was weak in 2017 but should rebound modestly this year
- Net interest margins bottomed and sustained expansion lies on the horizon, assuming further rates increases come to pass
- Deposit costs will increase as well but will lag increases in short-term rates in the near term

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Profitability Remains Well Below Pre-Crisis Levels

ROAA (%)	2006	YTD'17	Change (bps)
Industry aggregate	1.28	0.82	-46
Community bank aggregate	1.24	1.11	-13
Credit union aggregate	0.86	0.71	-14
Medians			
Wisconsin banks below			
\$10B	1.08	0.96	-12
Above \$250B	1.19	0.96	-23
\$50B-\$250B	1.35	1.09	-27
\$10B-\$50B	1.24	1.07	-17
\$1B-\$10B	1.17	1.02	-15
Below \$1B	1.01	0.93	-8
ROAE (%)			
Industry aggregate	12.85	7.27	-558
Community bank aggregate	12.05	9.70	-235
Credit union aggregate	7.81	5.17	-264
Medians			
Wisconsin banks below			
\$10B	10.12	8.47	-165
Above \$250B	13.40	10.07	-333
\$50B-\$250B	15.58	10.31	-527
\$10B-\$50B	12.92	8.56	-436
\$1B-\$10B	12.01	9.49	-252
Below \$1B	9.76	8.35	-141

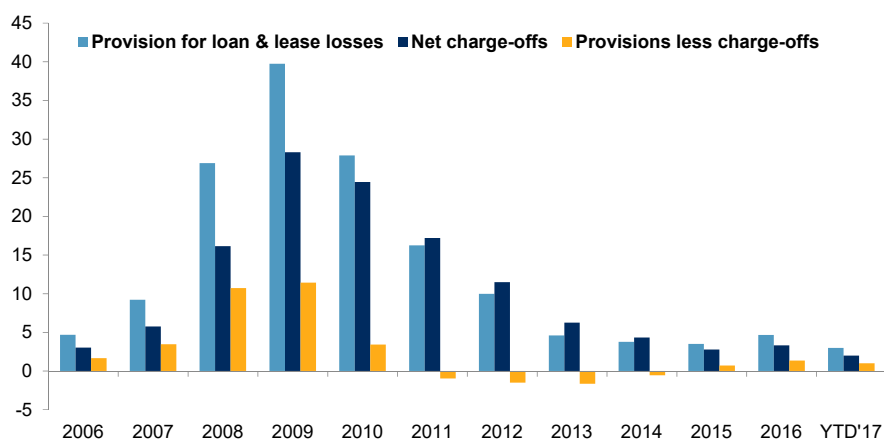
Efficiency ratio (%)	2006	YTD'17	Change (bps)
Industry aggregate	57.69	56.75	-94
Community bank aggregate	57.30	62.54	524
Credit union aggregate	72.18	75.02	285
Medians			
Wisconsin banks below			
\$10B	60.32	63.73	341
Above \$250B	60.32	58.92	-140
\$50B-\$250B	53.43	58.34	491
\$10B-\$50B	54.66	58.27	362
\$1B-\$10B	57.13	61.35	422
Below \$1B	65.66	67.60	194
Net interest margin (%)			
Industry aggregate	3.27	2.40	-87
Community bank aggregate	3.95	3.64	-31
Credit union aggregate	3.24	2.76	-48
Medians			
Wisconsin banks below			
\$10B	3.76	3.66	-10
Above \$250B	3.08	3.03	-5
\$50B-\$250B	3.45	3.14	-32
\$10B-\$50B	3.25	3.45	20
\$1B-\$10B	3.84	3.58	-26
Below \$1B	4.16	3.78	-38

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Credit Costs Once Again A Headwind For Community Banks (\$B)

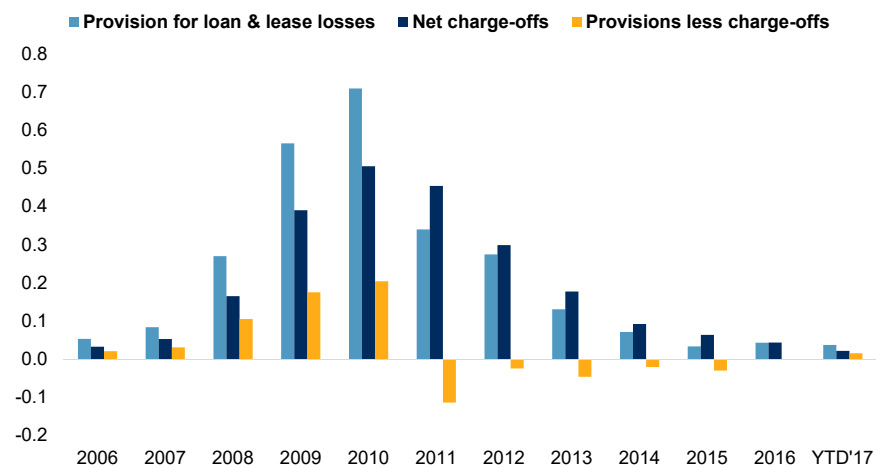


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Credit Leverage Finally Over For Wisconsin-based Banks (\$B)

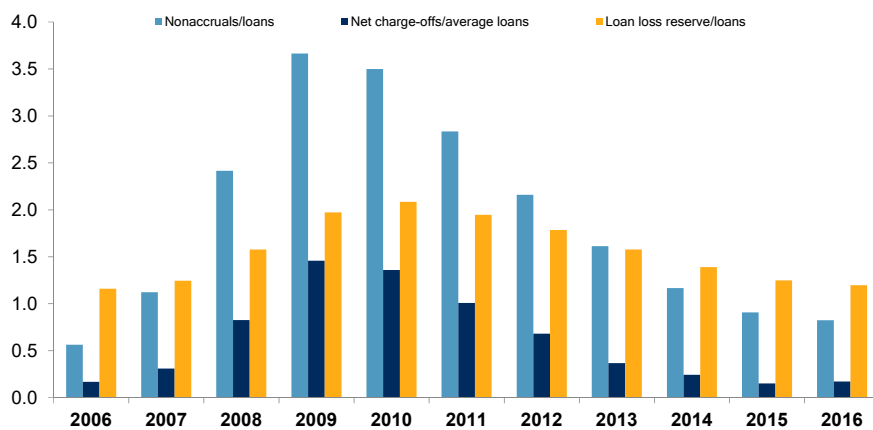


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Community Banks' Asset Quality Ratios Have Improved (%)

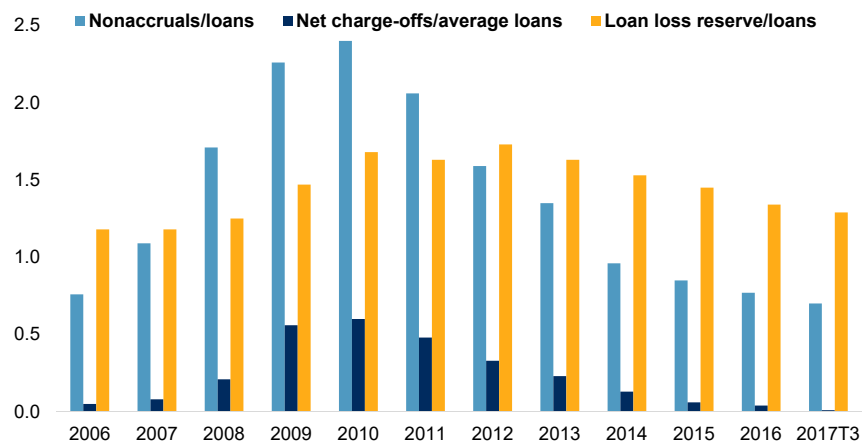


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Wisconsin-based Banks Asset Quality Remains Pristine (%)

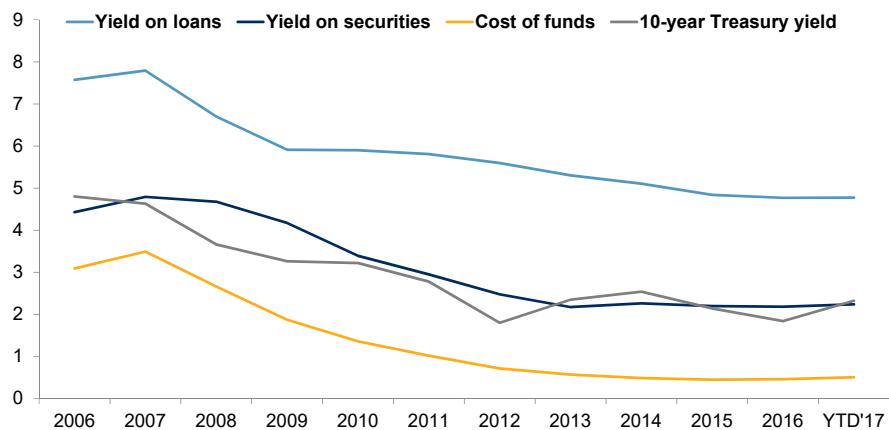


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After Years Of Pressure, Yields Stabilizing For Community Banks (%)

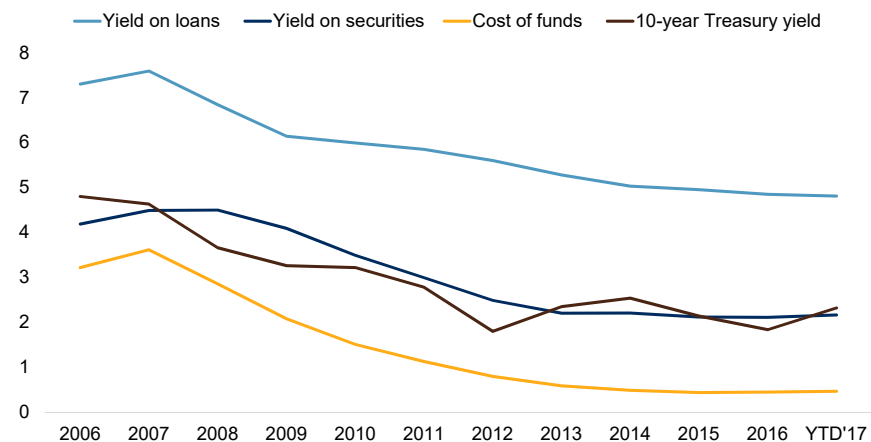


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Yields Recovering At Wisconsin-based Banks (%)

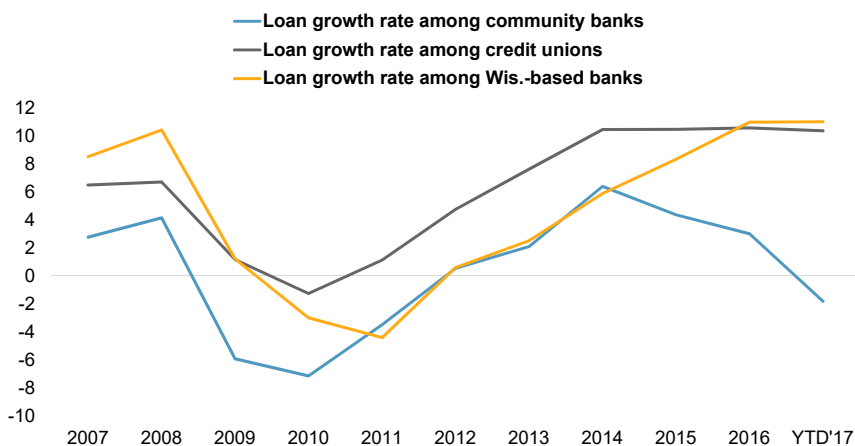


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Loan Growth Stronger At Wisconsin-based Banks (%)

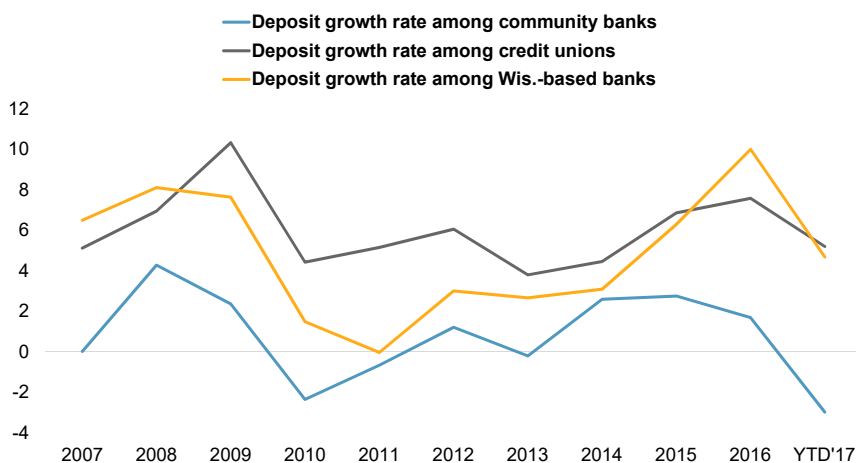


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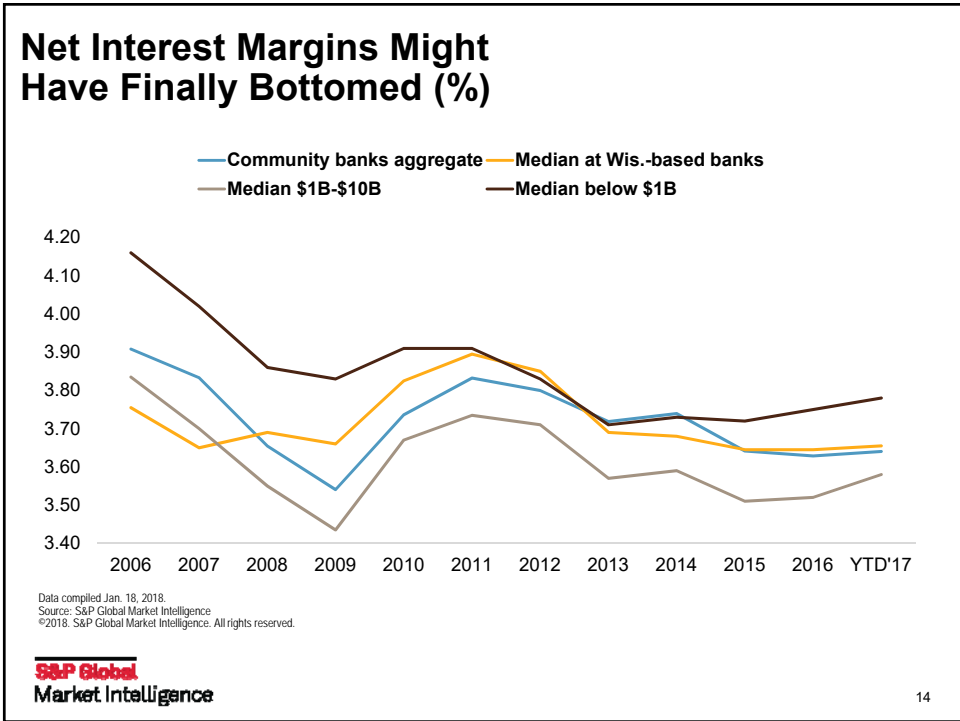
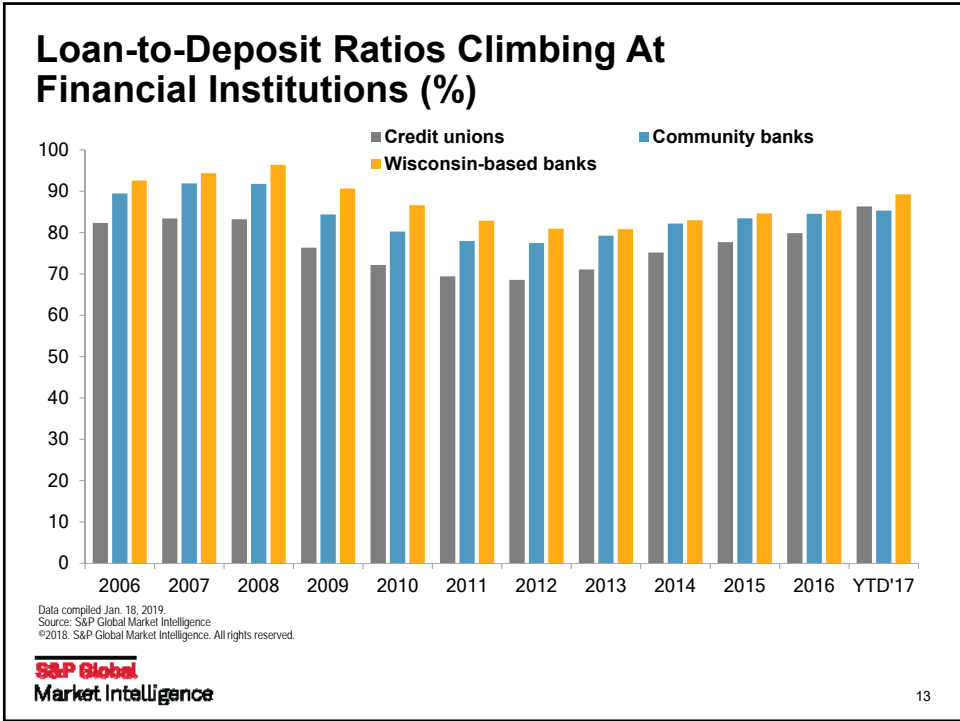
Deposit Growth Has Lagged Loan Growth Recently (%)



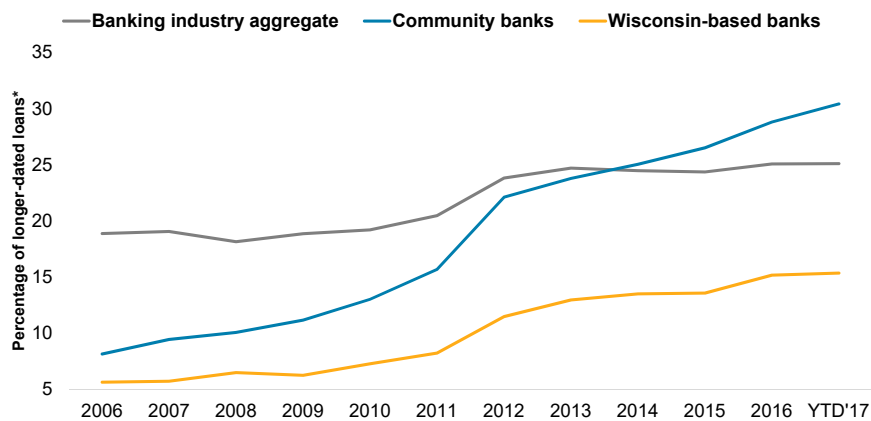
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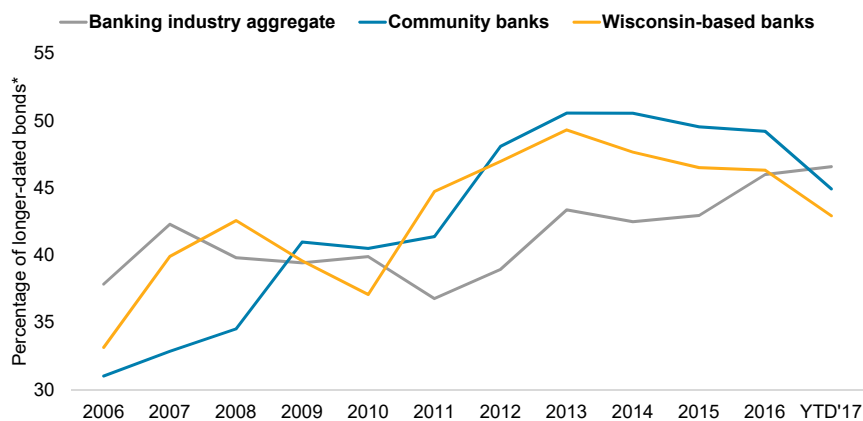


Community Banks Have Increased Exposure To Longer-Dated Loans (%)



Data compiled Jan. 19, 2018. *Longer-dated loans defined as credits with a remaining maturity or repricing frequency in excess of five years.
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Banks Are Reaching For Yield In Their Securities Portfolios (%)



Data compiled Jan. 19, 2018. *Longer-dated bonds defined as credits with a remaining maturity or repricing frequency in excess of five years.
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Key Assumptions, Drivers Of Outlook

- The projections assume future fed funds rates, 10-year Treasury yields, GDP growth and unemployment rates based on a monthly survey of more than 60 economists conducted by The Wall Street Journal
- Macro assumptions for 2020 and 2021 are based on the Congressional Budget Office's annual outlook
- The goal was to project banks' results if economic forecasts are correct

Key Assumptions, Drivers Of Outlook

- Relied heavily on our bank regulatory data
- Based projections on management commentary, discussions with industry sources, comparable periods in history, regression analysis, the Federal Reserve's H.8 data, and asset and liability repricing data disclosed in banks' quarterly call reports

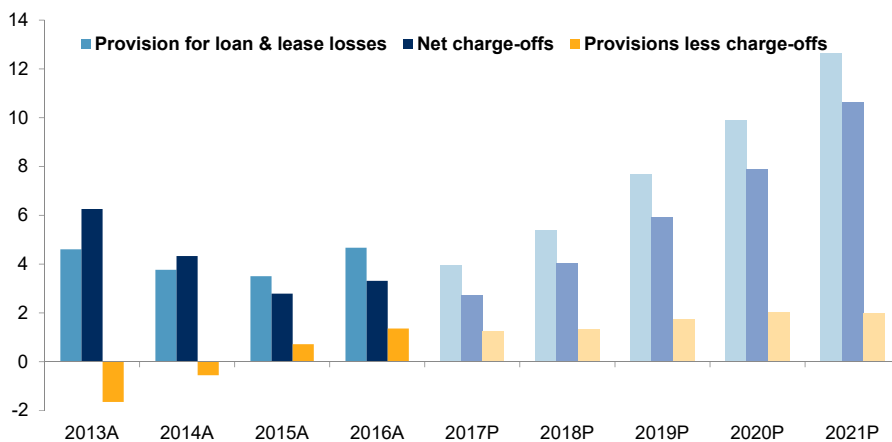
Bank Returns Poised To Improve Before Credit Normalizes

Profitability metrics for community banks						
ROAA (%)	2016A	2017P	2018P	2019P	2020P	2021P
Community banks	1.02	1.10	1.17	1.13	1.14	1.06
ROAE (%)						
Community banks	8.80	9.37	9.47	8.97	8.86	7.94
Efficiency ratio (%)						
Community banks	64.49	65.01	64.25	63.93	62.93	63.33
Net interest margin (%)						
Community banks	3.63	3.64	3.71	3.74	3.85	3.84

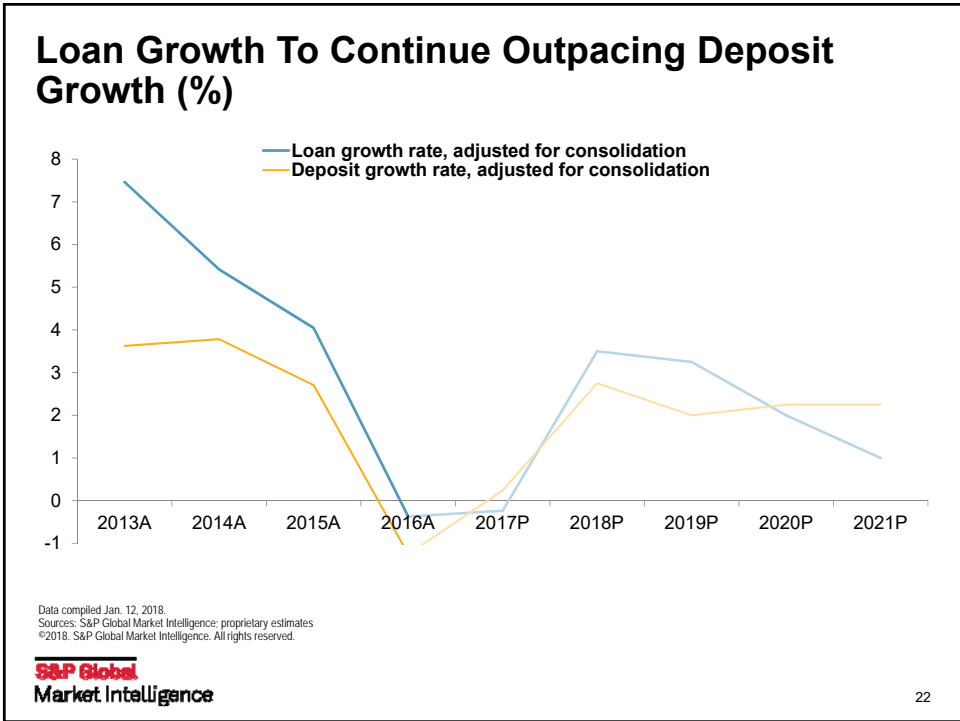
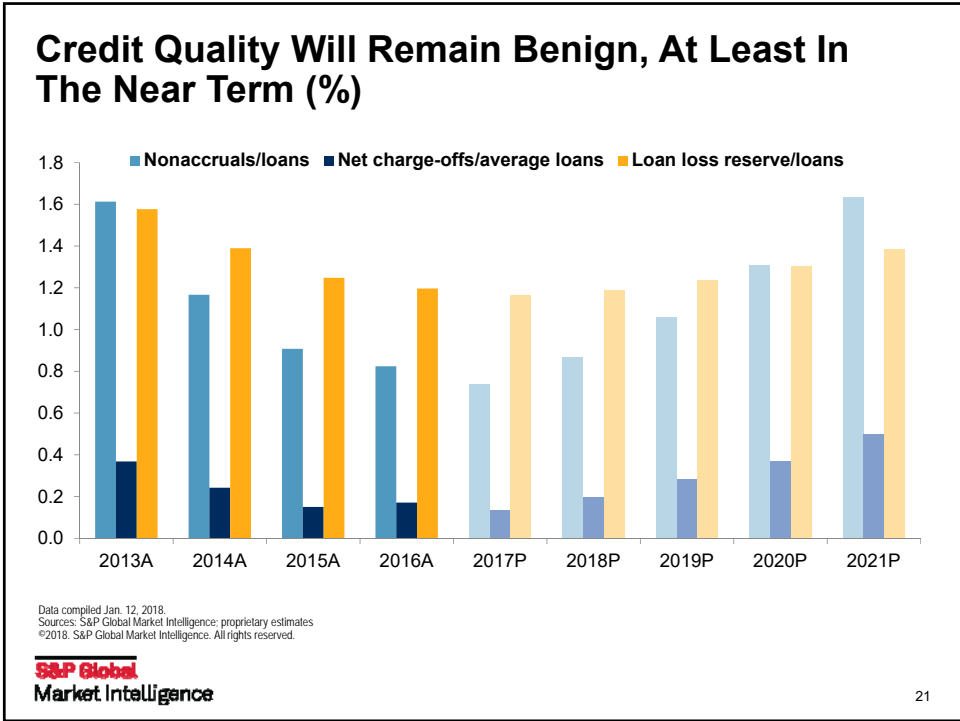
- Higher rates will mean sustained margin expansion for banks
- With tax reform providing an extra boost, returns will rise notably this year before credit spoils the party

Data compiled Jan. 12, 2018.
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Community Banks' Credit Costs Poised To Rise (\$B)



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Higher Rates Mean Higher Deposit Costs

Factors Influencing Future Costs

- Historical deposit betas during the last tightening cycle offer clues but some factors are different
- Banks liquidity needs at this point in the cycle
- How the introduction of liquidity requirements such as a liquidity coverage ratio, which places a premium on retail deposits, could change the competitive environment
- How quickly will deposits reprice

Higher Rates Mean Higher Deposit Costs

Factors Influencing Future Costs

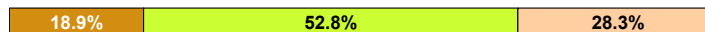
- Persistently low rates have given customers little incentive to take actions on their deposits thus far
- But ... early withdrawal penalties on CDs are not punitive enough to prevent a customer from moving into another deposit product down the street that offers 2x or more their current rate
- Many banks are beginning to run CD specials
- FDIC recently reminded community banks to be mindful of potential funding issues that could arise in stress situations

Higher Rates Mean Higher Deposit Costs Factors Influencing Future Costs

- Community banks should experience lower deposit betas
- Banks in more rural markets should experience lower betas
- Banks with greater customer loyalty will have lower betas as well
- Customers who have more than one product with the bank – treasury and cash management products in addition to deposit relationship – likely more loyal
- Digital banking channels can build loyalty

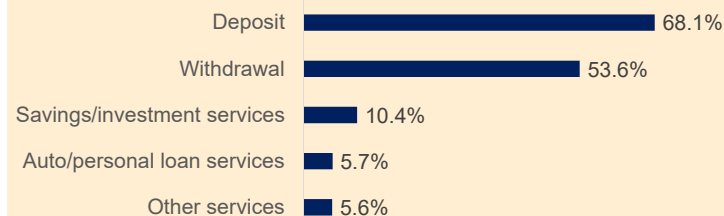
Customers Using Branches Less

How many times in the last 30 days have you visited a branch of your primary bank (to visit ATM, talk to teller, drive through, etc.)?*



■ Zero ■ One to three ■ Four or more

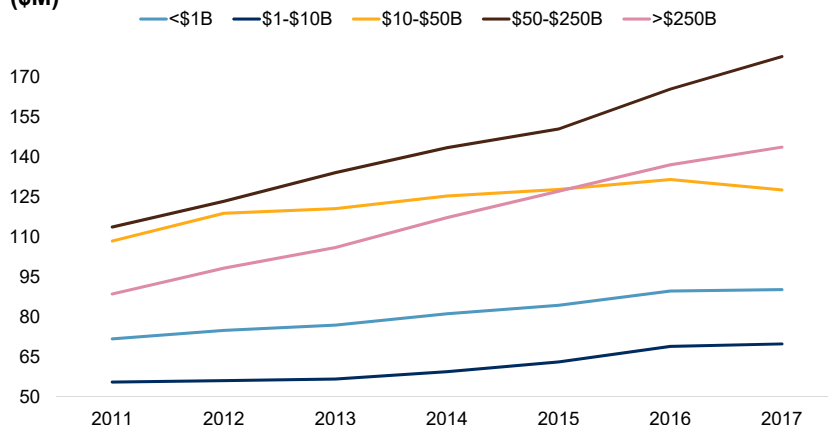
Which of the following activities did you perform inside the branch of your primary bank?



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Digital Investments Make Branches Less Important

Total deposits per branch by asset size (\$M)



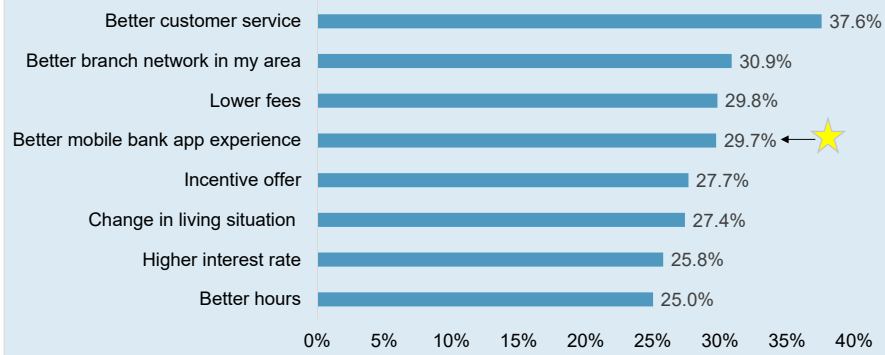
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Mobile Apps Can Create Customer Loyalty

Which of the following best represents why you switched your primary checking account to a different bank in the past 12 months?



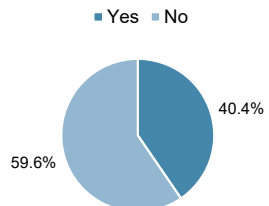
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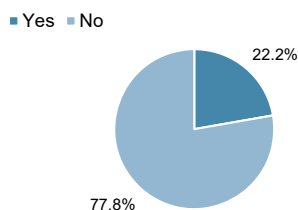
28

Mobile Apps Can Create Customer Loyalty

If your bank started charging a \$1 per month fee to use your bank app, would you pay to keep using it?

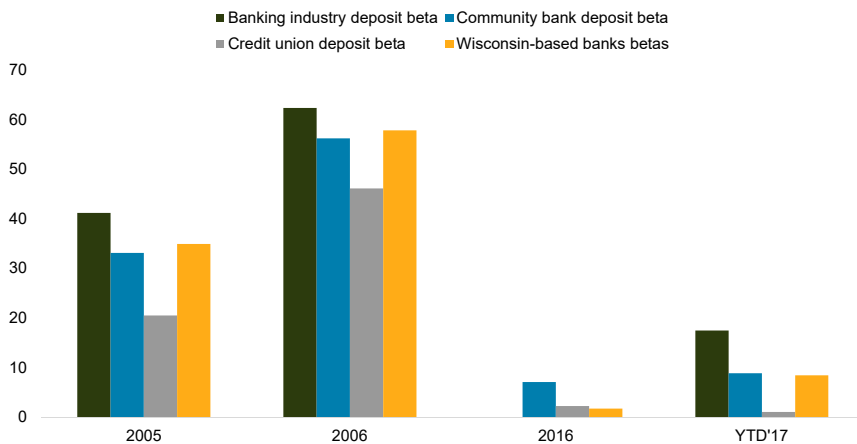


If your bank started charging a \$3 per month fee to use your bank app, would you pay to keep using it?



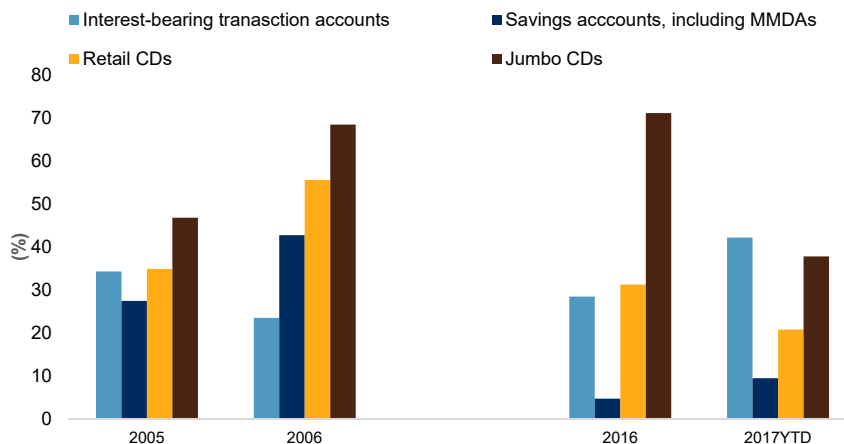
Data compiled July 26, 2017.
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Deposit Betas Beginning To Rise (%)



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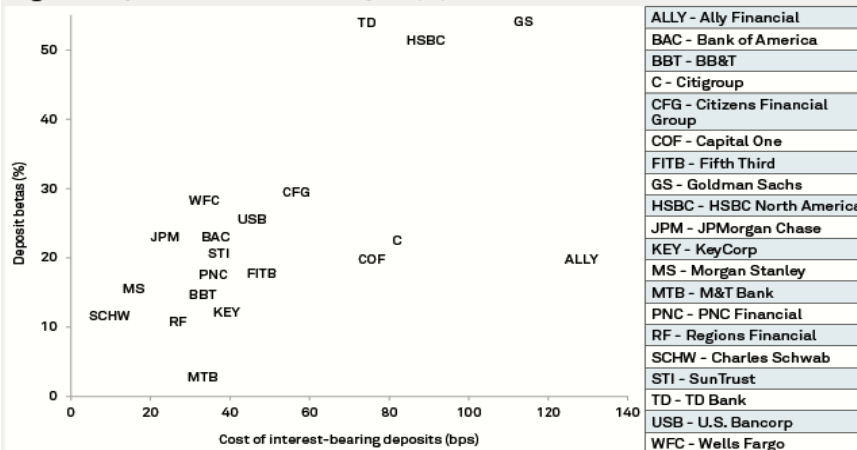
Looking For Clues In Betas By Product Type (%)



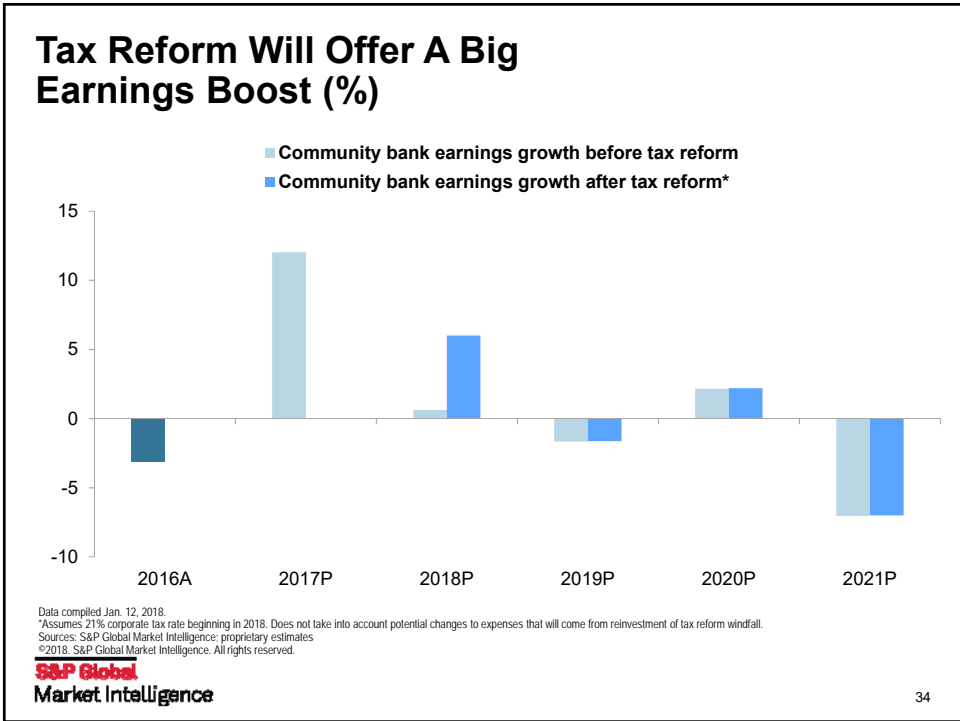
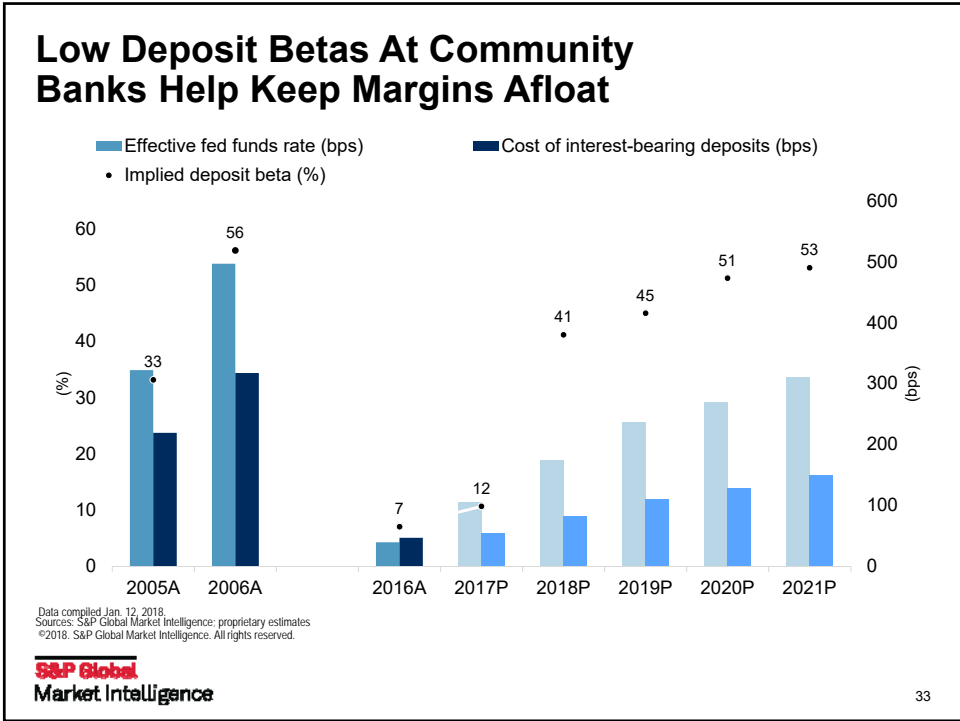
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Betas Breaking From The Herd

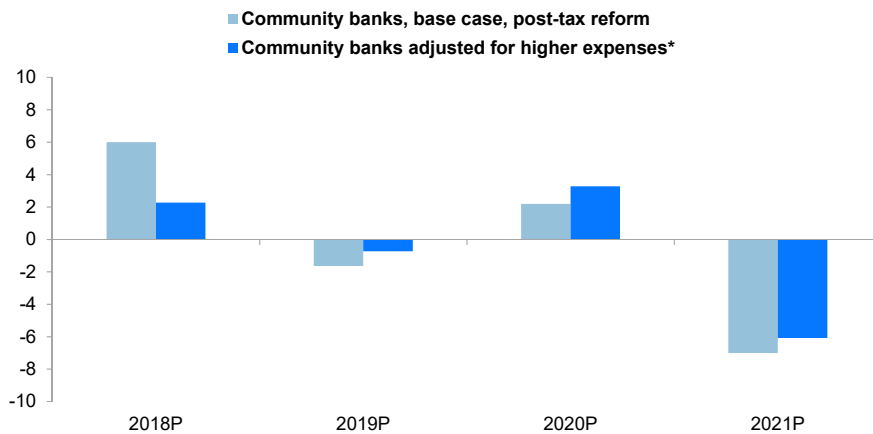
Big bank deposit betas over the last year (%)



Deposit betas calculated based on the change in the effective fed funds rate and changes in deposit rates between the third quarters of 2016 and 2017.
Includes top 20 banks by deposits, excluding trust/custody banks Bank of New York Mellon, State Street and Northern Trust due to their lack of exposure to retail banking clients.
Source: S&P Global Market Intelligence.
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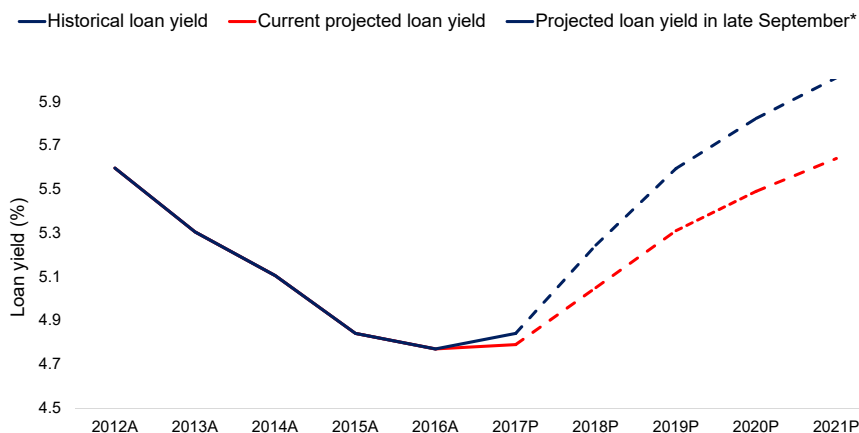


Banks Will Retain Bulk Of Tax Reform Savings Even After Sharing The Wealth



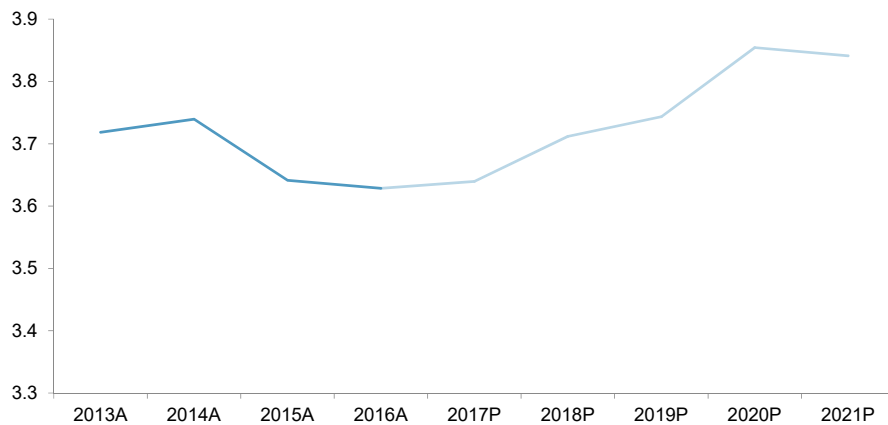
Data compiled Jan. 12, 2018.
 *Assumes institutions will reinvest portions of savings from tax reform. S&P Global Market Intelligence estimated additional noninterest expenses based on disclosures from a number of large banks about wage hikes, bonuses and charitable donations.
 Increased noninterest expenses by 1.75% relative to our base case in 2018, by 1.25% in 2019, 0.75% in 2020 and 0.25% in 2021.
 Sources: S&P Global Market Intelligence; proprietary estimates
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Yields Rising But Competition, Lower Long-Term Rates Will Limit Upside (%)



Data compiled Jan. 12, 2018.
 *Loan yield projected in late September based on community bank performance through the second quarter of 2017. Revised estimates reflect a more bearish outlook for yields due to community banks' loan portfolio positioning and competition, and an updated interest rate outlook.
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Community Bank Margins Poised To Expand (%)



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Future Looks Fairly Positive

- Higher rates, continued strength in credit quality will allow bank returns to improve
- Despite concerns about credit cycle getting long in the tooth, this cycle appears to have legs, buoyed by tax reform
- Tax reform could heighten competition for loans
- If credit cycle turns earlier than expected, costs will rise, margins expansion will likely stall as competition for loans intensifies and liquidity pressures emerge
- Banks with stable, low-cost funding and consistent underwriting would be best positioned if the cycle turns earlier than expected

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38

Q&A

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