

**Bank**Director.  
Strong Board. Strong Bank.

# 2018 Risk Survey

MAR 2018 | RESEARCH

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# BankDirector.

## About Bank Director

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## About Moss Adams

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## EXECUTIVE SUMMARY

**In addition to better meeting the needs of consumers, technology's promise often revolves around efficiency. Banks are clamoring to make the compliance function—a significant burden on the business that doesn't directly drive revenue—less expensive. But the jury's out on whether financial institutions are seeing greater profitability as a result of regtech solutions.**

In Bank Director's 2018 Risk Survey, 55 percent of directors, chief executive officers, chief risk officers and other senior executives of U.S. banks above \$250 million in assets say that the introduction of technology to improve the compliance function has increased the bank's compliance costs, forcing them to budget for higher expenses. Just 5 percent say that technology has decreased the compliance budget.

Regtech solutions to comply with the Bank Secrecy Act, vendor management and Know Your Customer rules are widely used, according to survey respondents.

Accounting and consulting firm Moss Adams LLP sponsored the 2018 Risk Survey, which was conducted in January 2018 and completed by 224 executives and board members. The survey examines the risk landscape for the banking industry, including cybersecurity, credit risk and the impact of rising interest rates.

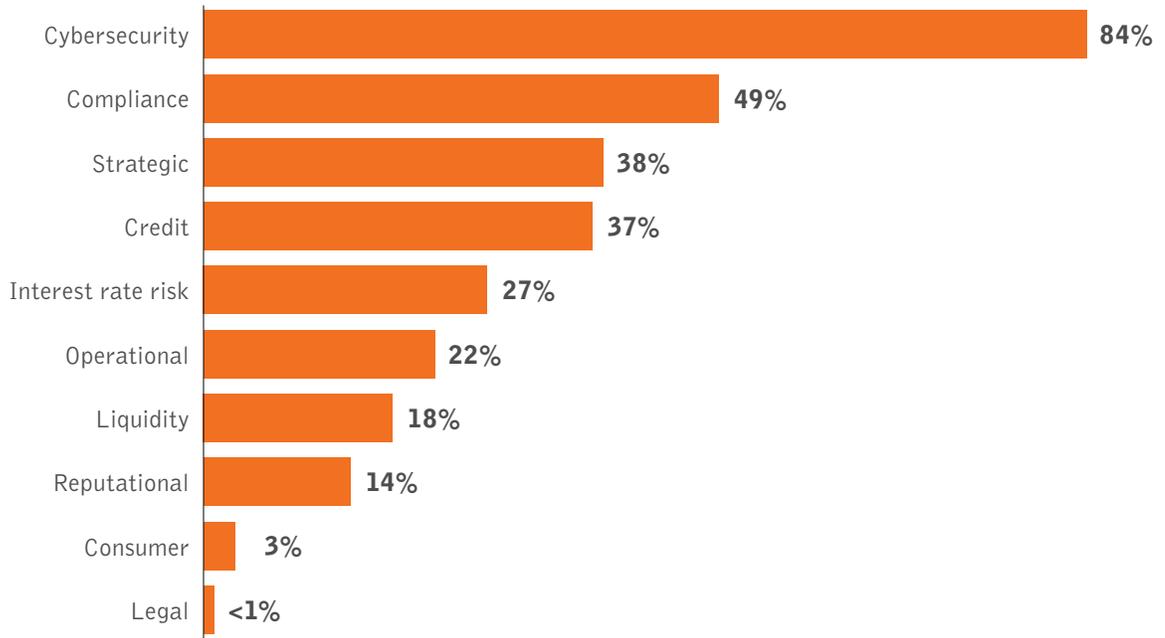
Fifty-eight percent say that the fiscal year 2018 budget increased by less than 10 percent from the previous year, and 26 percent say the budget increased between 10 and 25 percent. Respondents report a median compliance budget in FY 2018 of \$350,000.

### Additional Findings:

- Cybersecurity remains a top risk concern, for 84 percent of executives and directors, followed by compliance risk (49 percent) and strategic risk (38 percent).
- Respondents report that banks budgeted a median of \$200,000 for cybersecurity expenses, including personnel and technology.
- Seventy-one percent say their bank employs a full-time chief information security officer.
- Sixty-nine percent say the bank has an adequate level of in-house expertise to address cybersecurity.
- All respondents say that their bank has an incident response plan in place to address a cyber incident, but 37 percent are unsure if that plan is effective. Sixty-nine percent say the bank conducted a table top exercise—essentially, a simulated cyberattack—in 2017.
- If the Federal Reserve's Federal Open Market Committee raises interest rates significantly—defined in the survey as a rise of 1 to 3 points—45 percent expect to lose some deposits, but don't believe this will significantly affect the bank.
- If rates rise significantly, 45 percent say their bank will be able to reprice between 25 and 50 percent of the loan portfolio. Twenty-eight percent indicate that the bank will be able to reprice less than 25 percent of its loan portfolio.
- One-quarter of respondents are concerned that the bank's loan portfolio is overly concentrated in certain types of loans, with 71 percent of those respondents concerned about commercial real estate concentrations.

**1. With respect to your bank, which three risk categories are you most concerned about?**

*Respondents were asked to select no more than three.*

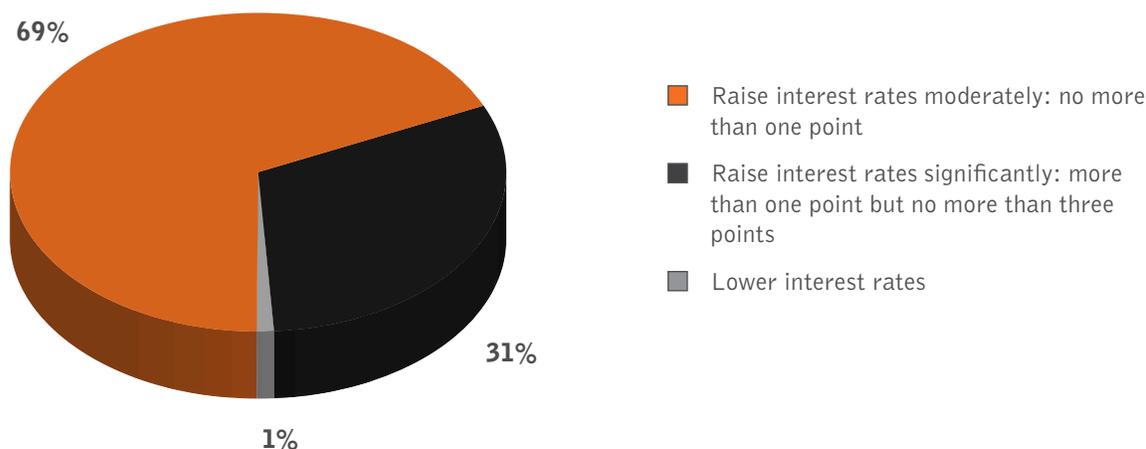


Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Cybersecurity	83%	100%	85%	82%	77%	84%
Compliance	58%	18%	50%	52%	53%	49%
Strategic	58%	41%	34%	37%	32%	38%
Credit	29%	41%	43%	35%	29%	37%
Interest rate risk	17%	29%	22%	33%	38%	27%
Operational	21%	35%	22%	22%	15%	22%
Liquidity	4%	18%	20%	17%	24%	18%
Reputational	17%	12%	13%	9%	21%	14%
Consumer	–	–	2%	6%	6%	3%
Legal	4%	–	–	–	–	<1%

## INTEREST RATE AND CREDIT RISK

### 2. By the end of 2019, I expect the Federal Reserve's Federal Open Market Committee (FOMC) to:

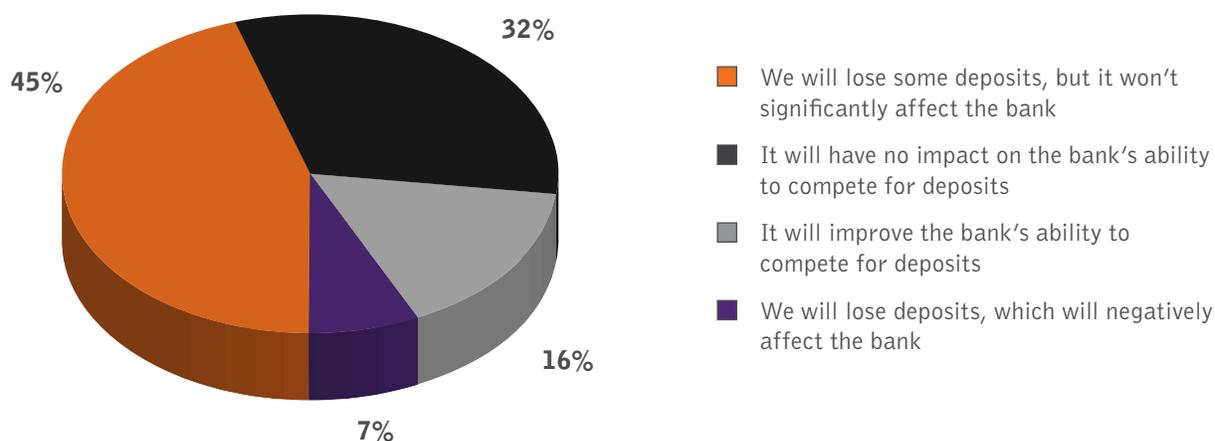
Question was not asked of chief information officers and chief information security officers. Numbers don't add up to 100 percent due to rounding.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Raise interest rates moderately: no more than one point	75%	80%	72%	62%	59%	69%
Raise interest rates significantly: more than one point but no more than three points	25%	20%	28%	38%	37%	31%
Lower interest rates	–	–	–	–	4%	1%

### 3. If the FOMC raises interest rates by more than one point, how do you expect this to affect your bank's ability to attract and retain deposits?

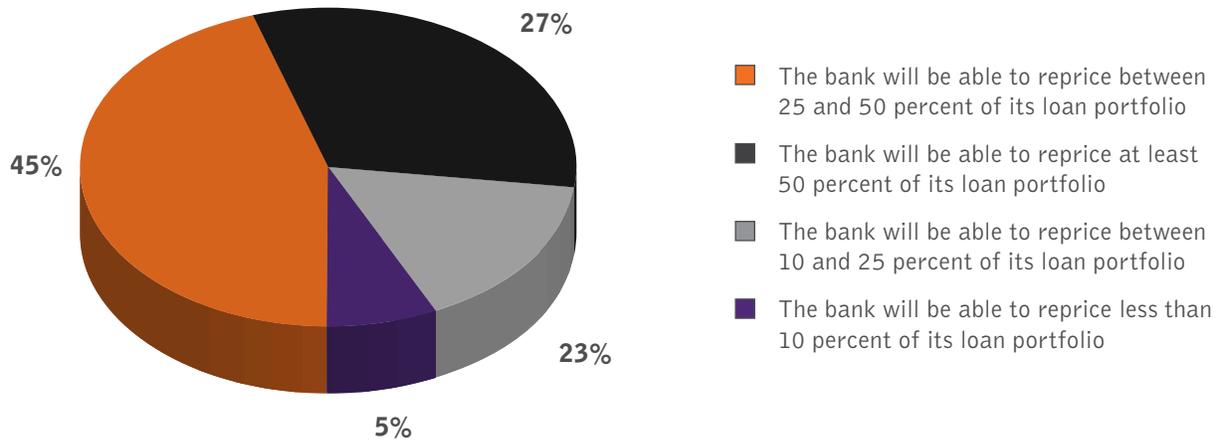
Question was not asked of CIOs and CISOs.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
We will lose some deposits, but it won't significantly affect the bank	42%	43%	49%	33%	59%	45%
It will have no impact on the bank's ability to compete for deposits	53%	21%	25%	39%	30%	32%
It will improve the bank's ability to compete for deposits	5%	21%	21%	17%	7%	16%
We will lose deposits, which will negatively affect the bank	—	14%	6%	11%	4%	7%

**4. If the FOMC raises interest rates by more than one point, will your bank be able to reprice its loan portfolio?**

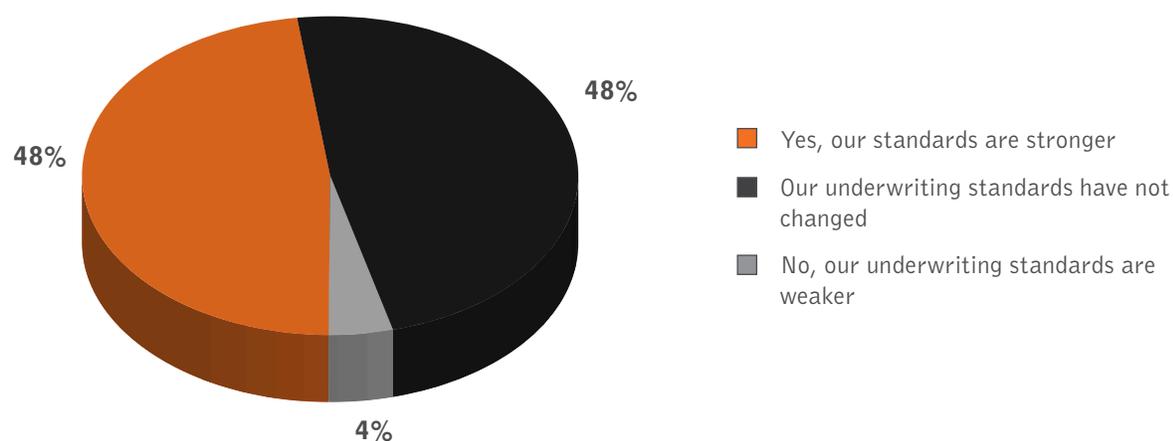
*Question was not asked of CIOs and CISOs. Numbers don't add up to 100 percent due to rounding.*



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
The bank will be able to reprice between 25 and 50 percent of its loan portfolio	35%	43%	43%	47%	52%	45%
The bank will be able to reprice at least 50 percent of its loan portfolio	59%	14%	25%	30%	15%	27%
The bank will be able to reprice between 10 and 25 percent of its loan portfolio	–	29%	28%	19%	30%	23%
The bank will be able to reprice less than 10 percent of its loan portfolio	6%	14%	4%	5%	4%	5%

### 5. In the past two years, have your bank's underwriting standards grown stronger?

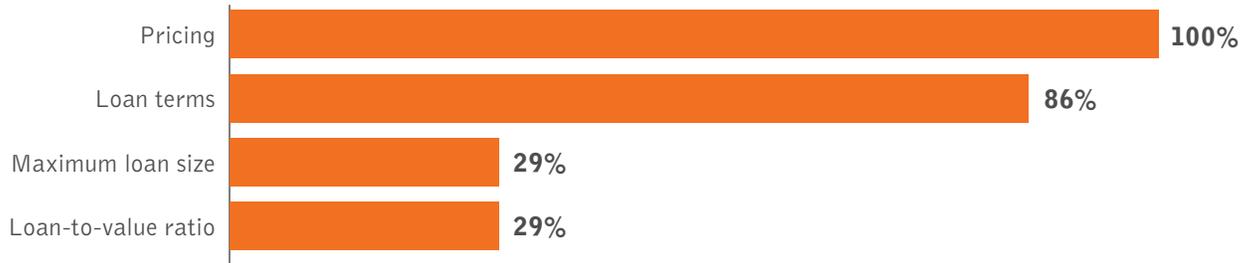
*Question was not asked of CIOs and CISOs.*



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Yes, our standards are stronger	70%	27%	48%	48%	44%	48%
Our underwriting standards have not changed	30%	67%	49%	48%	48%	48%
No, our underwriting standards are weaker	–	7%	3%	4%	7%	4%

**6. In which areas have the bank’s underwriting standards eased in the past two years?**

Respondents were asked to select all that apply. Question was limited to respondents who indicated that underwriting standards had weakened at their bank in the last two years.



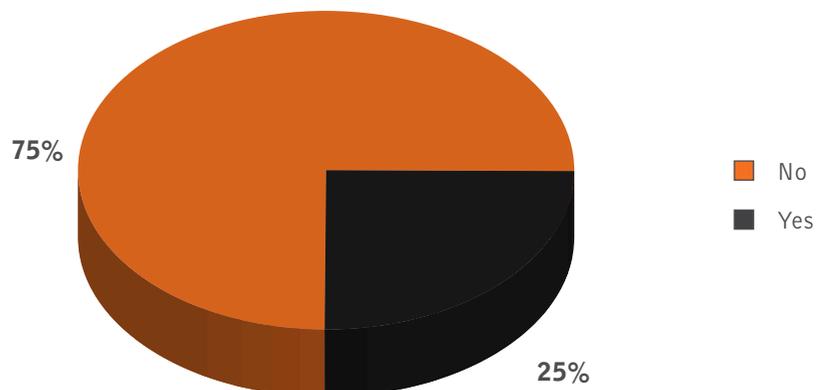
**7. How much of each type of loan is represented in your bank’s loan portfolio?**

Median values reported. Question was not asked of CIOs and CISOs. \*Indicates a base count of less than 10 within a category.

Bank Asset Size	>\$10B*	\$5B - \$10B*	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Commercial real estate	33%	65%	34%	35%	33%	35%
Mortgage loans, including home equity loans	22%	10%	18%	24%	26%	20%
Commercial & industrial	26%	8%	17%	15%	12%	15%
Small business loans	5%	11%	7%	10%	10%	10%
Construction loans	16%	6%	10%	7%	6%	9%
Consumer loans, including credit cards	3%	4%	3%	5%	5%	5%
Other	11%	1%	5%	6%	3%	4%
Auto loans	2%	–	1%	3%	3%	2%

### 8. Are you concerned that your bank's loan portfolio is overly concentrated in a certain type(s) of loans?

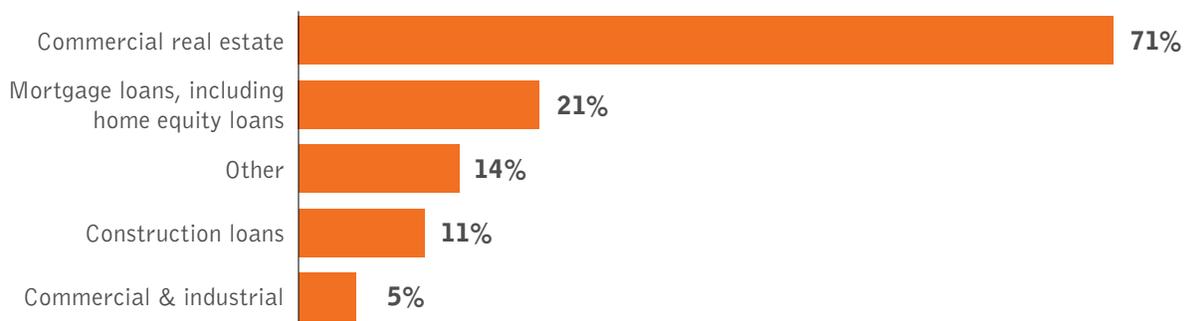
Question was not asked of CIOs and CISOs.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
No	89%	73%	71%	71%	84%	75%
Yes	11%	27%	29%	29%	16%	25%

### 9. In which areas do you believe your bank's loan portfolio is overly concentrated?

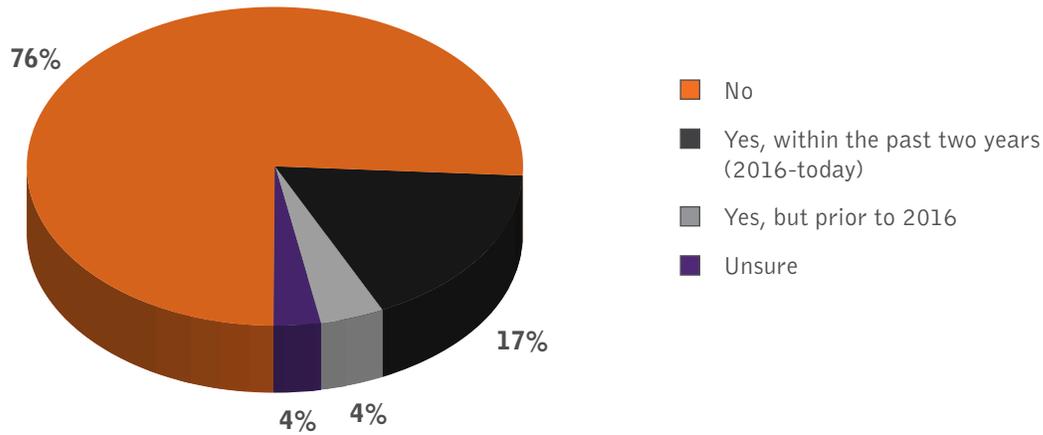
Respondents were allowed to select no more than two types of loans. Question was limited to those indicating concern about the loan portfolio being overly concentrated in certain loan types.



## CYBERSECURITY

### 10. Has your bank experienced a data breach or other cyberattack?

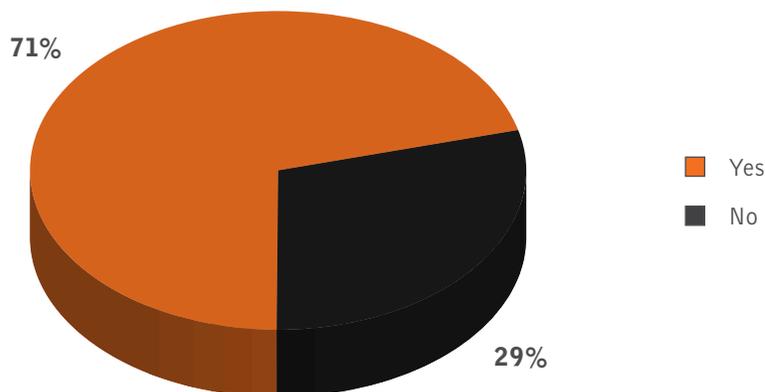
Question was not asked of chief credit officers or chief lending officers. Add new sentence after this one: Numbers don't add up to 100 percent due to rounding.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
No	59%	67%	82%	77%	76%	76%
Yes, within the past two years (2016-today)	35%	20%	12%	16%	16%	17%
Yes, but prior to 2016	–	–	4%	5%	4%	4%
Unsure	6%	13%	2%	2%	4%	4%

### 11. Does your bank employ a full-time chief information security officer (CISO)?

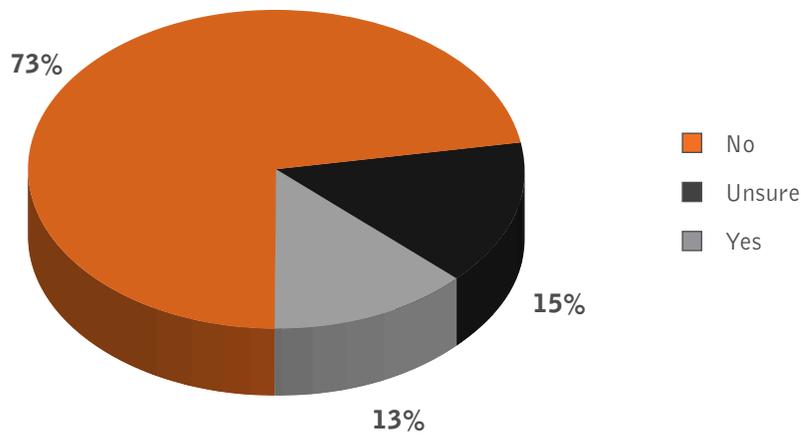
Question was not asked of chief credit officers and chief lending officers.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Yes	83%	100%	75%	64%	48%	71%
No	17%	–	25%	36%	52%	29%

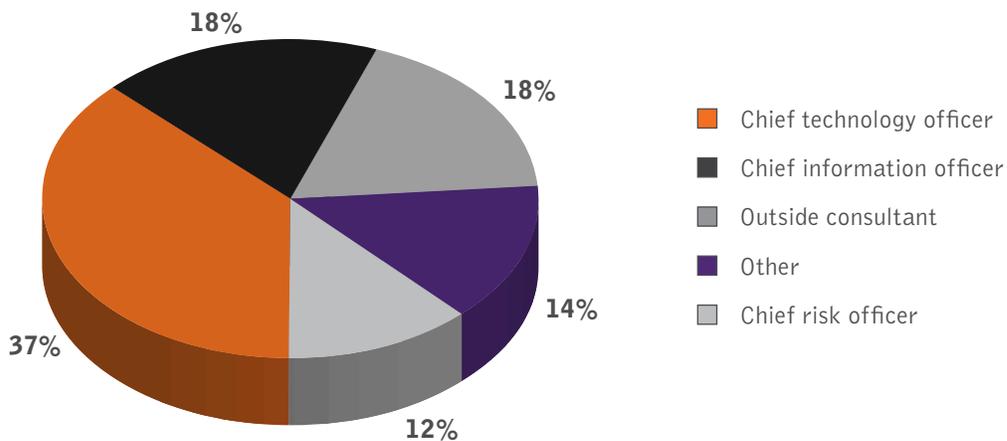
**12. Does your bank plan to employ a full-time CISO by the end of 2018?**

Question was limited to respondents who indicate that the bank does not employ a full-time CISO. Numbers don't add up to 100 percent due to rounding.



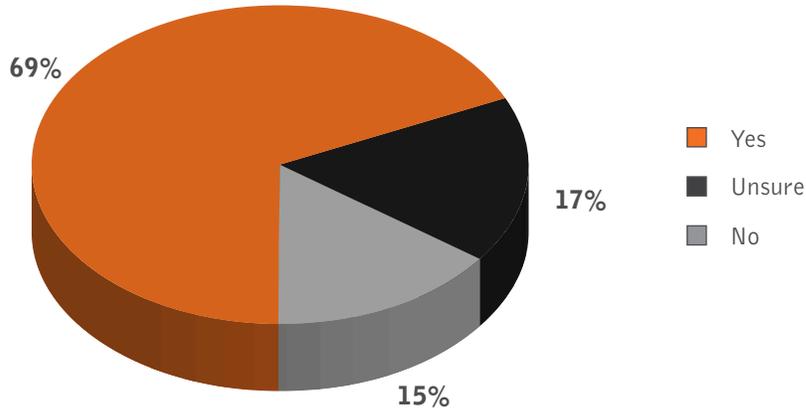
**13. Who currently handles information security/cybersecurity at your bank?**

Question was limited to respondents who indicate that the bank does not employ a full-time CISO. Numbers don't add up to 100 percent due to rounding.



**14. Do you believe that the bank has an adequate level of in-house expertise to address cybersecurity?**

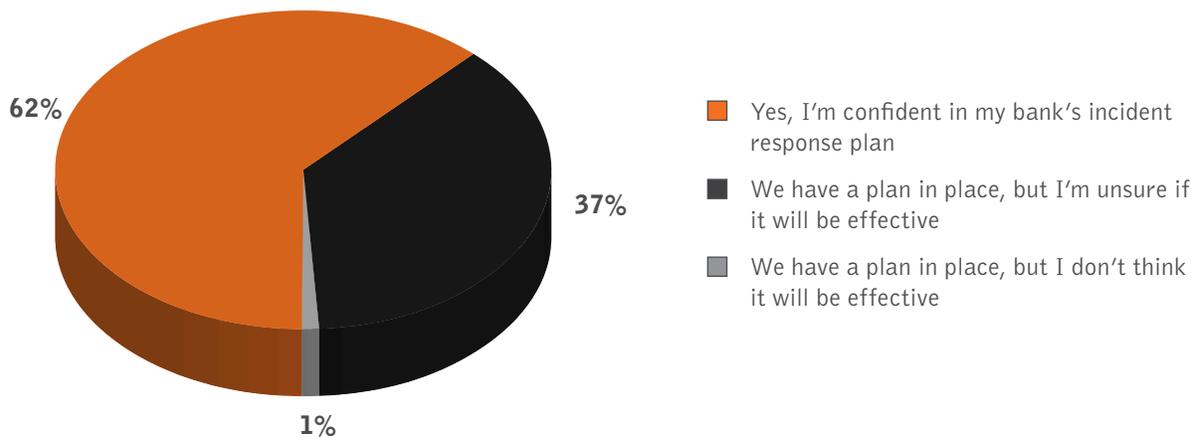
*Question was not asked of chief credit officers or chief lending officers. Numbers don't add up to 100 percent due to rounding.*



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Yes	72%	80%	71%	71%	52%	69%
Unsure	17%	7%	15%	21%	20%	17%
No	11%	13%	15%	9%	28%	15%

**15. Does the bank have an incident response plan in place that you believe will be effective, should a cybersecurity incident occur?**

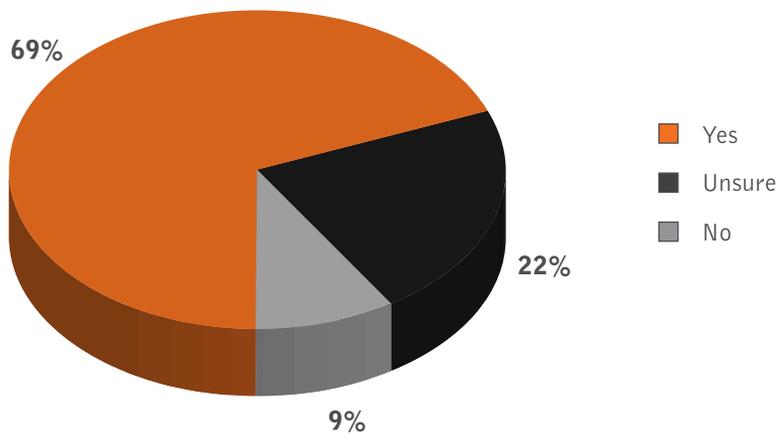
*Question was not asked of chief credit officers or chief lending officers.*



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Yes, I'm confident in my bank's incident response plan	61%	47%	66%	66%	56%	62%
We have a plan in place, but I'm unsure if it will be effective	39%	53%	34%	34%	40%	37%
We have a plan in place, but I don't think it will be effective	–	–	–	–	4%	1%

**16. Has the bank conducted a table top exercise within the last 12 months?**

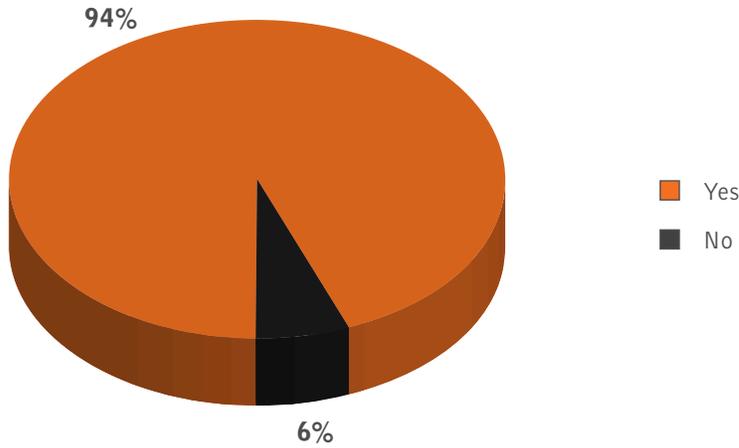
*Question was not asked of chief credit officers or chief lending officers.*



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Yes	78%	80%	66%	64%	72%	69%
Unsure	6%	7%	27%	32%	12%	22%
No	17%	13%	7%	5%	16%	9%

**17. Were you satisfied with the results of the table top exercise?**

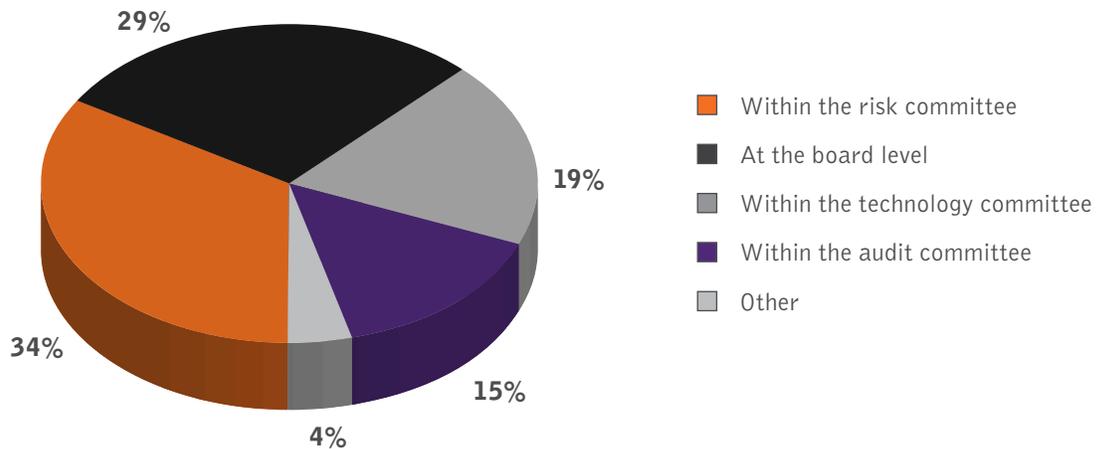
Question was limited to respondents who indicate that the bank conducted a table top exercise within the last 12 months.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Yes	92%	83%	96%	96%	94%	94%
No	8%	17%	5%	4%	6%	6%

**18. How does the board primarily handle cybersecurity governance?**

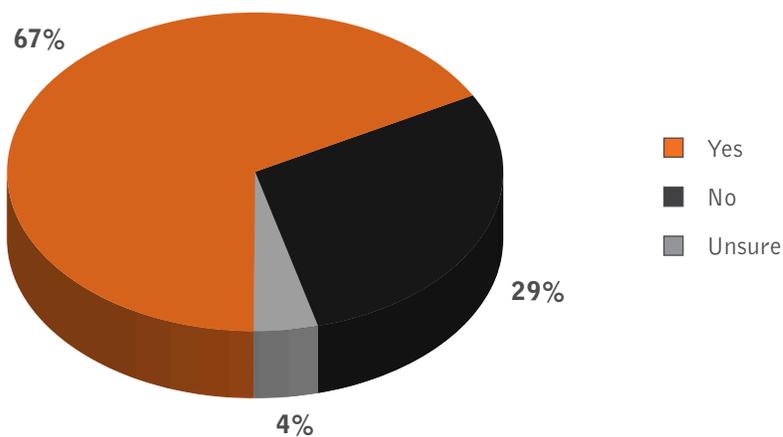
Question was not asked of chief credit officers or chief lending officers.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Within the risk committee	60%	64%	38%	15%	21%	34%
At the board level	13%	21%	27%	30%	46%	29%
Within the technology committee	20%	7%	19%	25%	17%	19%
Within the audit committee	7%	7%	13%	23%	17%	15%
Other	–	–	5%	8%	–	4%

**19. Does the committee tasked with cybersecurity governance review cybersecurity at every committee meeting?**

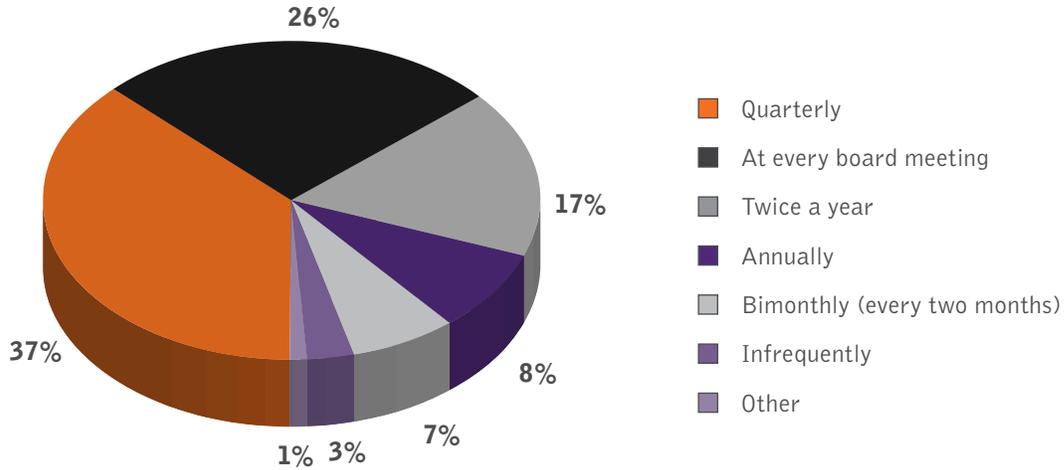
*Question was limited to respondents who indicate that the board primarily handles cybersecurity governance within the risk, audit or technology committees.*



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Yes	85%	82%	59%	68%	62%	67%
No	15%	18%	39%	20%	39%	29%
Unsure	–	–	2%	12%	–	4%

**20. How frequently does the board as a whole review cybersecurity?**

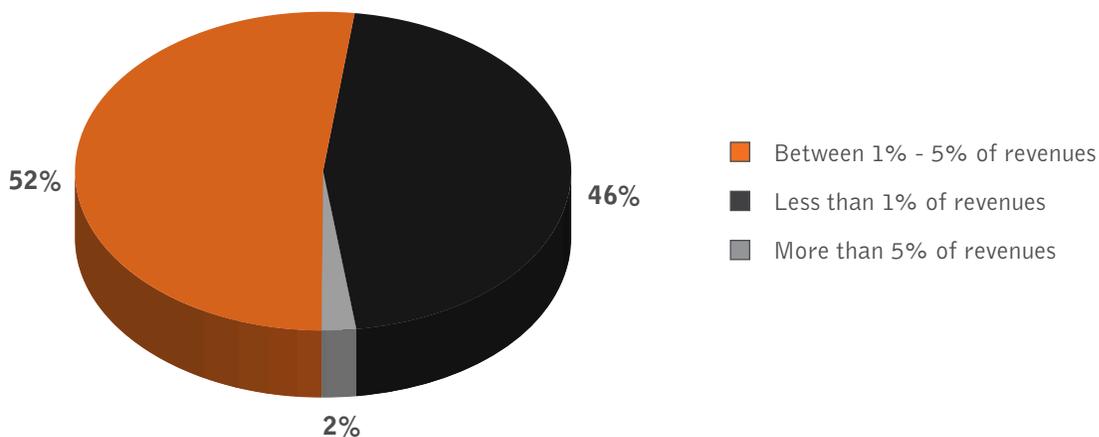
Question was not asked of chief credit officers or chief lending officers.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Quarterly	33%	36%	41%	40%	25%	37%
At every board meeting	47%	21%	24%	23%	29%	26%
Twice a year	7%	36%	11%	25%	17%	17%
Annually	7%	–	8%	8%	13%	8%
Bimonthly (every two months)	–	7%	14%	–	4%	7%
Infrequently	7%	–	–	3%	13%	3%
Other	–	–	2%	3%	–	1%

**21. How large was your bank’s cybersecurity budget for fiscal year 2017?**

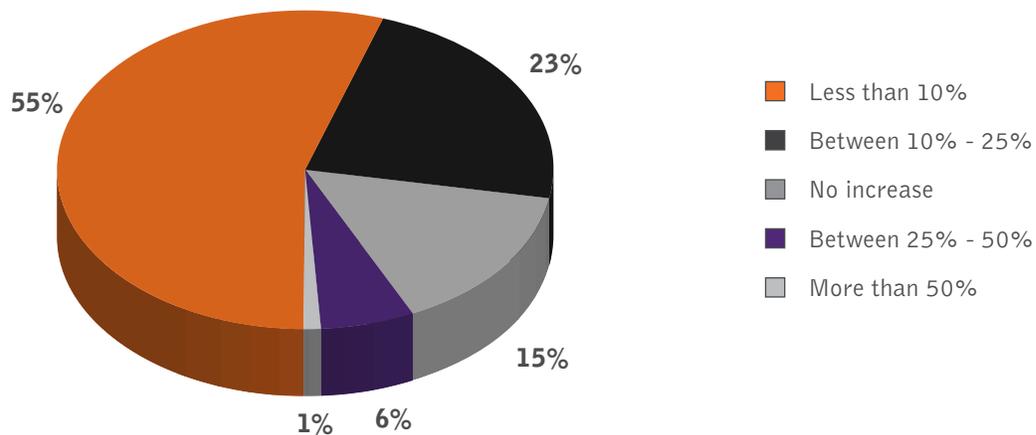
Question was not asked of chief credit officers or chief lending officers.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Between 1% - 5% of revenues	64%	71%	59%	49%	22%	52%
Less than 1% of revenues	36%	29%	38%	49%	78%	46%
More than 5% of revenues	–	–	3%	3%	–	2%

## 22. How much has your bank's cybersecurity budget increased for FY 2018, compared to FY 2017?

*Question was not asked of chief credit officers or chief lending officers.*

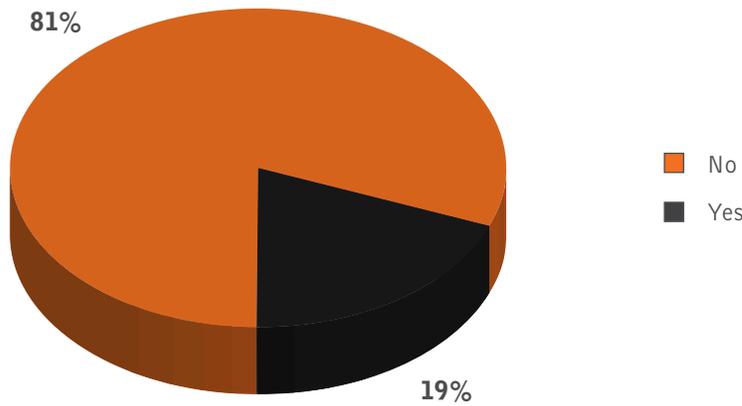


Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Less than 10%	39%	46%	61%	62%	39%	55%
Between 10% - 25%	39%	39%	24%	11%	26%	23%
No increase	–	–	12%	22%	26%	15%
Between 25% - 50%	15%	15%	3%	5%	4%	6%
More than 50%	8%	–	–	–	4%	1%

**23. How much has your bank budgeted for cybersecurity expenses, including personnel and technology, for FY 2018?**  
 Median values reported. Question was not asked of chief credit officers or chief lending officers. \*Indicates a base count of less than 10 within a category.

Bank Asset Size	>\$10B*	\$5B - \$10B*	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Median	\$5,000,000	\$450,000	\$200,000	\$105,000	\$50,000	\$200,000

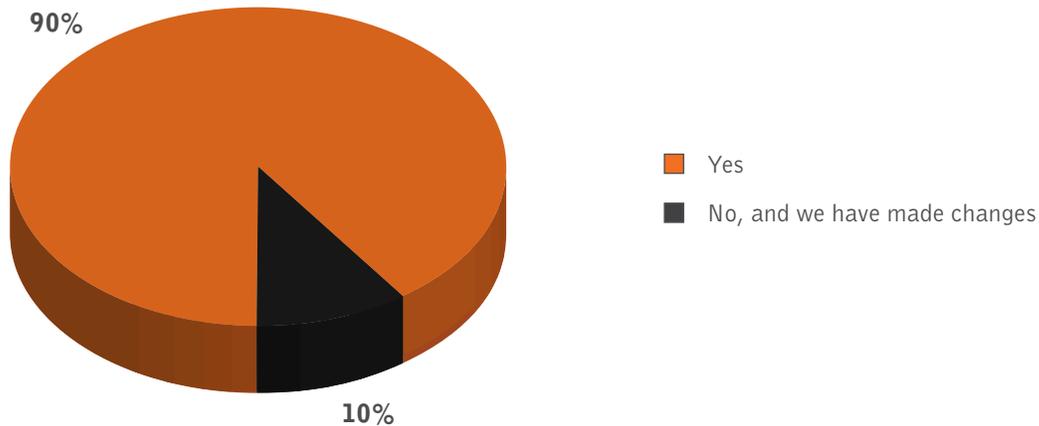
**24. Has a natural disaster, such as a hurricane, tornado, flood or fire, impacted part of your bank's geographic footprint within the past two years?**  
 Question was not asked of chief credit officers or chief lending officers.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
No	53%	79%	82%	85%	92%	81%
Yes	47%	21%	18%	15%	8%	19%

**25. Based on that experience, were you satisfied with all aspects of your bank’s business continuity plan?**

Question was limited to respondents who indicate that a part of the bank’s geographic footprint was impacted by a natural disaster in the past two years.



**COMPLIANCE AND REGTECH**

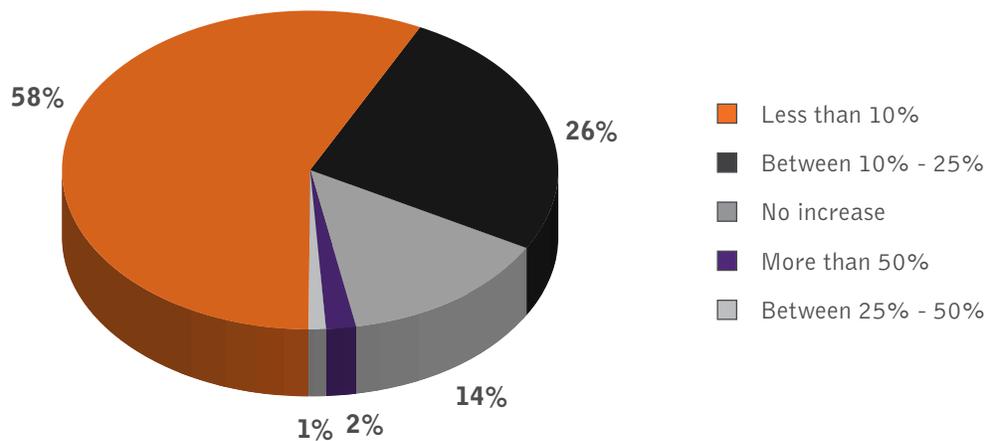
**26. How much has your bank budgeted for compliance, including personnel and technology, for FY 2018?**

Median values reported. Question was not asked of CISOs, chief credit officers or chief lending officers. \*Indicates a base count of less than 10 within a category.

Bank Asset Size	>\$10B*	\$5B - \$10B*	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Median	\$5,000,000	\$400,000	\$500,000	\$300,000	\$175,000	\$350,000

**27. By how much has your bank’s compliance budget increased for FY 2018, compared to FY 2017?**

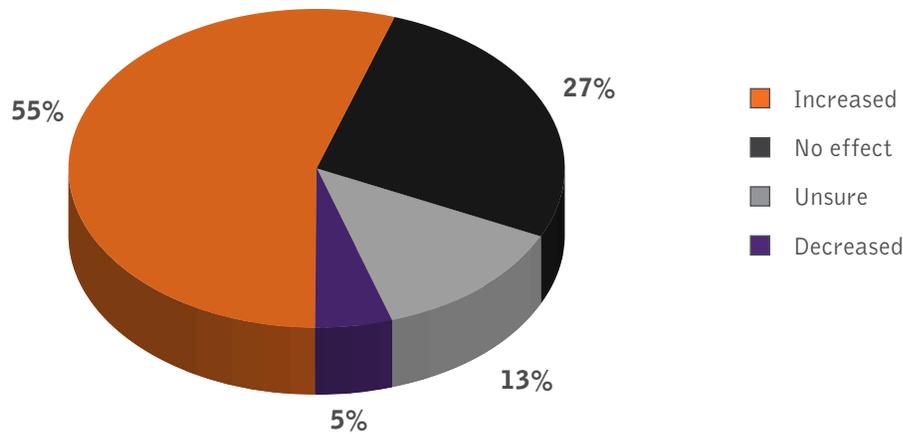
Question was not asked of CISOs, chief credit officers or chief lending officers. Numbers don’t add up to 100 percent due to rounding.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Less than 10%	64%	62%	51%	60%	65%	58%
Between 10% - 25%	9%	39%	32%	23%	15%	26%
No increase	18%	–	17%	17%	10%	14%
More than 50%	9%	–	–	–	5%	2%
Between 25% - 50%	–	–	–	–	5%	1%

**28. Has the introduction of technology to make the compliance function more efficient increased or decreased your bank’s compliance budget?**

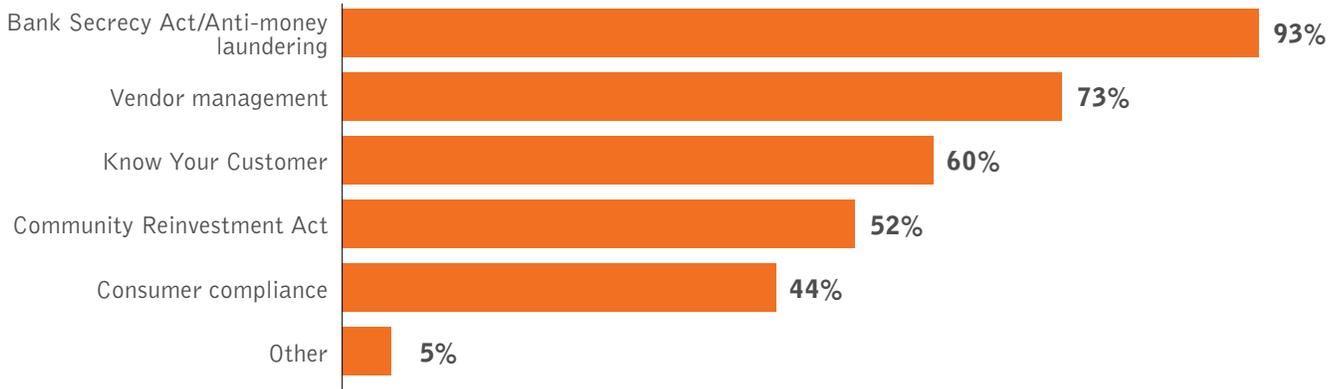
*Question was not asked of CISOs, chief credit officers or chief lending officers.*



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Increased	62%	43%	60%	56%	45%	55%
No effect	8%	43%	21%	28%	45%	27%
Unsure	23%	14%	13%	13%	5%	13%
Decreased	8%	–	6%	3%	5%	5%

**29. In what areas has your bank deployed technology to improve the compliance function?**

Respondents were asked to select all that apply. Question was not asked of CISOs, chief credit officers or chief lending officers.

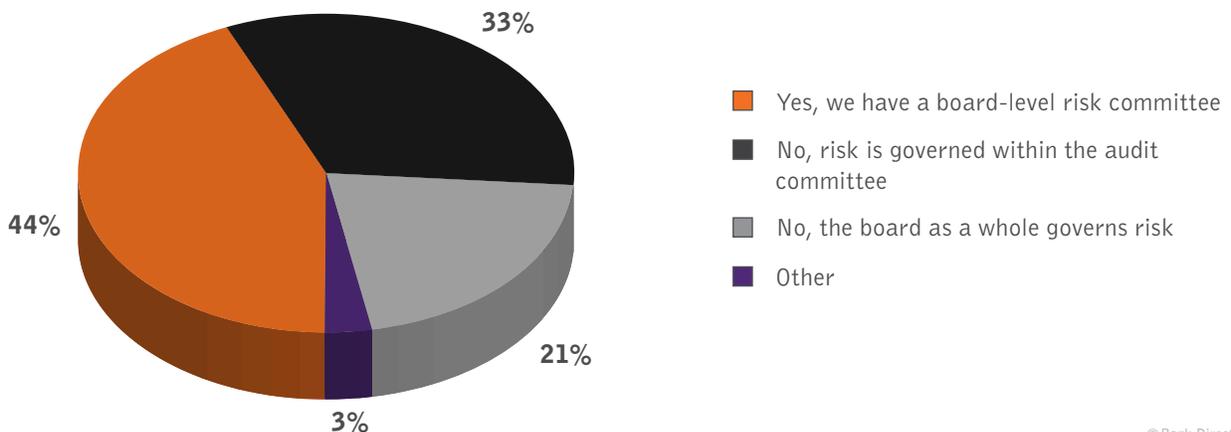


Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Bank Secrecy Act/Anti-money laundering	100%	92%	89%	97%	95%	93%
Vendor management	64%	69%	72%	80%	70%	73%
Know Your Customer	71%	77%	57%	67%	40%	60%
Community Reinvestment Act	57%	46%	50%	73%	25%	52%
Consumer compliance	43%	31%	39%	57%	45%	44%
Other	–	8%	4%	3%	15%	5%

**RISK GOVERNANCE**

**30. Does the board have a separate committee exclusively dedicated to risk governance?**

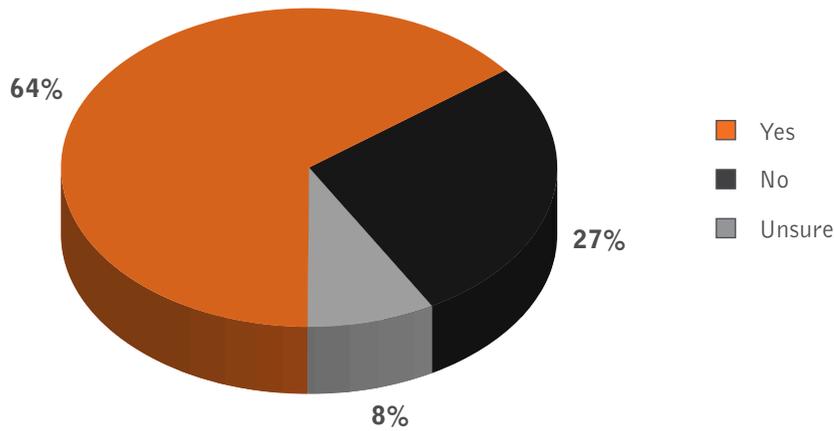
Question was not asked of CIOs, CISOs, chief credit officers or chief lending officers. Numbers don't add up to 100 percent due to rounding.



Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Yes, we have a board-level risk committee	86%	85%	45%	23%	19%	44%
No, risk is governed within the audit committee	14%	8%	32%	42%	48%	33%
No, the board as a whole governs risk	–	–	21%	32%	29%	21%
Other	–	8%	2%	3%	5%	3%

**31. Does your board have at least one member that you would consider to be an expert on risk as relates to financial institutions?**

Question was not asked of CIOs, CISOs, chief credit officers or chief lending officers. Numbers don't add up to 100 percent due to rounding.



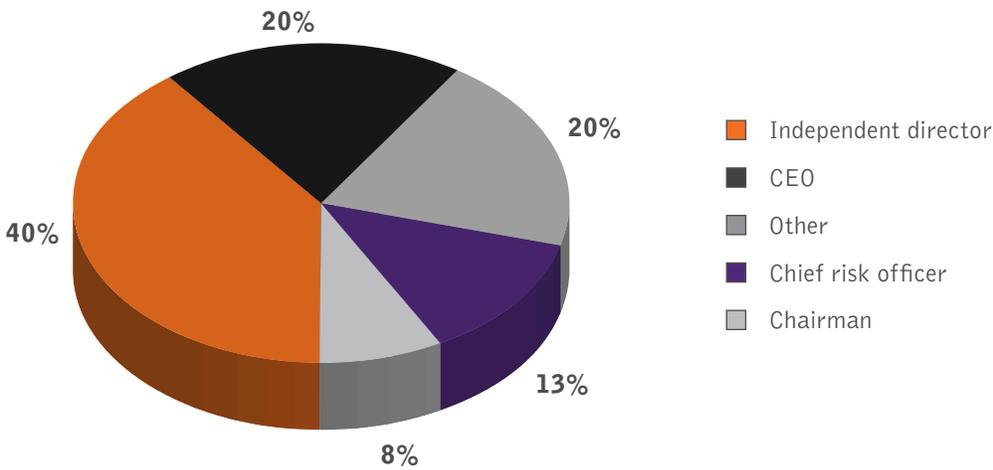
Bank Asset Size	>\$10B	\$5B - \$10B	\$1B - \$5B	\$500M - \$1B	<\$500M	Total
Yes	71%	100%	66%	61%	38%	64%
No	7%	–	30%	26%	52%	27%
Unsure	21%	–	4%	13%	10%	8%

## ABOUT THE SURVEY

Bank Director’s 2018 Risk Survey, sponsored by Moss Adams LLP, surveyed 224 independent directors, chief risk officers, chief executives and other senior executives of U.S. banks above \$250 million in assets to examine the risk landscape for today’s banking industry, including approaches and concerns around cybersecurity, rising interest rates and credit risk. The survey was conducted in January 2018. Forty-two percent of respondents represent financial institutions between \$1 billion and \$5 billion in assets, and 19 percent represent banks over \$5 billion. Forty-six percent of respondents are independent members or chairmen of the bank’s board, and 13 percent serve as the organization’s CRO.

### Title Breakdown

Numbers don’t add up to 100 percent due to rounding.



### Asset Size

Numbers don’t add up to 100 percent due to rounding.

