Bank Director

Strong Board. Strong Bank.

# 2015 Risk Practices Survey Summary Report

MAR 2015 | RESEARCH

Sponsored by:

## TABLE OF CONTENTS



### About Bank Director

Since its inception in 1991, Bank Director has been a leading information resource for senior officers and directors of financial institutions. Chairmen, CEOs, CFOs, presidents and directors of banks and financial institutions turn to Bank Director to keep pace with the ever-changing landscape of the financial services industry. For more information about Bank Director, visit www.bankdirector.com.

### About FIS

FIS (NYSE:FIS) is the world's largest global provider dedicated to banking and payments technologies. FIS serves over 14,000 financial institutions globally. FIS is a member of the Standard & Poor's 500® Index and is ranked #1 in the annual FinTech 100 rankings. FIS' Enterprise Governance, Risk and Compliance (EGRC) Solutions group provides clients a 360-degree solution set of products and services that enable enterprise risk management, enhance overall compliance programs and mitigate risk through a best practices-based model that ensures regulatory compliance proficiencies now and in the future. For more information, please visit www.fisglobal.com/egrc.

## EXECUTIVE SUMMARY

In the wake of high-profile cyberattacks and data breaches last year at JPMorgan Chase & Co., Sony Pictures Entertainment Inc., Home Depot Inc., Kmart and eBay Inc., bank leaders say that cybersecurity is the risk category that concerns them most, according to Bank Director's 2015 Risk Practices Survey, sponsored by FIS. Eighty-two percent of respondents, which include bank chief executives, chief risk officers and directors, cite this as a top concern for the second year in a row, and anxiety about the issue is even more heightened: When asked the same question in last year's survey, 51 percent of respondents cited cybersecurity.

Half say that preparing for a potential cyberattack is one of the biggest risk management challenges facing their bank. But while high profile attacks may be raising the blood pressure of bank CEOs, other senior executives and individual directors, this hasn't yet translated into more focus by bank boards. Less than 20 percent say cybersecurity is reviewed at every board meeting, and 51 percent of risk committees do not review the bank's cybersecurity plan. Most banks allocated less than 1 percent of revenues to cybersecurity in 2014.

In addition to cybersecurity, the 2015 Risk Practices Survey explores how bank leaders govern risk and address the related challenges they face. A total of 149 directors and senior executives of U.S. banks with more than $500 million in assets participated in the survey, which was conducted online in January.

### Key Findings:

- Risk expertise matters, and respondents from institutions with a chief risk officer, indicated by 90 percent, and at least one risk expert on the board, by two-thirds, report a higher return on equity and return on assets.

- Eighty-two percent believe there is room for improvement in the bank's enterprise risk management (ERM) program.

- Fifty-eight percent report their bank has a risk appetite statement, and an additional 27 percent plan to implement one within the next 12 months. Of those who have one, 84 percent say the board reviews the risk appetite statement just once a year.

- Creating a culture that supports bank-wide risk communication and assessment is a key challenge, according to 43 percent, up 18 percentage points from last year's survey. Sixty-two percent provide regular board training on risk issues, and a little more than half train all employees on risk. Just 21 percent communicate the risk appetite statement to all employees.

- Seventy-three percent believe their board needs more training and education on emerging risks, such as cybersecurity or Unfair, Deceptive or Abusive Acts or Practices (UDAAP) risks.

- Almost two-thirds report that their bank employs a full-time chief information security officer. For those banks that don't, the role often falls on the chief information officer.

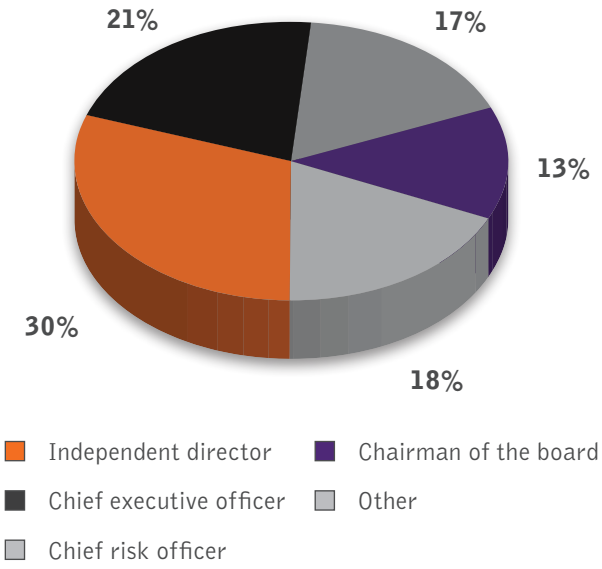
- A significant percentage of banks rely on their vendors to keep themselves—and their customers—safe: 44 percent of respondents reveal a heavy dependence, and half a moderate dependence, on vendors for cybersecurity.

- Seventy-nine percent say their bank increased its cybersecurity budget for fiscal year 2015, most by less than 10 percent. The majority of banks, at 60 percent, dedicated less than 1 percent of revenues to cybersecurity in FY 2014.

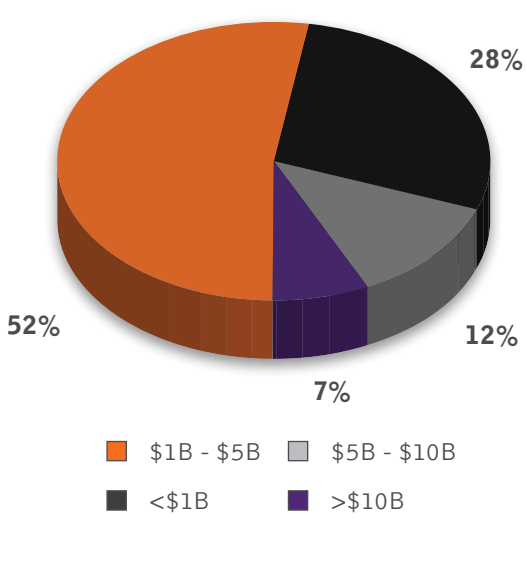
## ABOUT THE SURVEY

Bank Director's 2015 Risk Practices Survey, sponsored by FIS, surveyed 149 independent directors and senior executives of U.S. banks with more than $500 million in assets to examine risk management practices and governance trends, as well as how banks govern and manage cybersecurity risk. The survey was conducted online in January 2015. Forty-three percent of participants serve as an independent director or chairmen at their bank. Twenty-one percent are CEOs, and 17 percent serve as the bank's chief risk officer. Eighty percent represent institutions with between $500 million and $5 billion in assets.

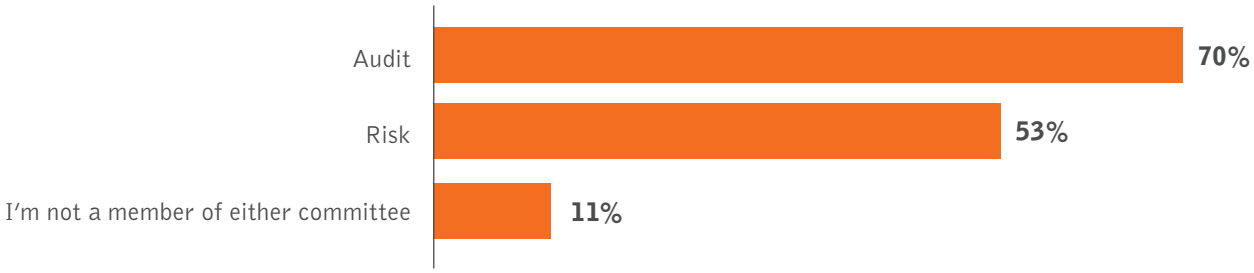
### Title Breakdown




### Size of Bank



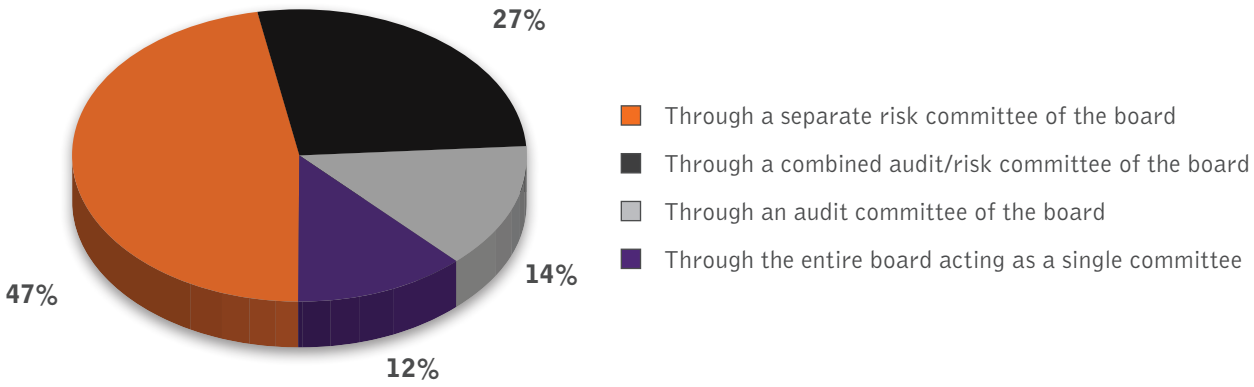

### Board Committee Membership




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Median return on equity (ROE) | 9.6 | 9.0 | 9.2 | 8.5 | 9.0 |
| Median return on assets (ROA) | 1.1 | 1.1 | 1.0 | 0.8 | 1.0 |

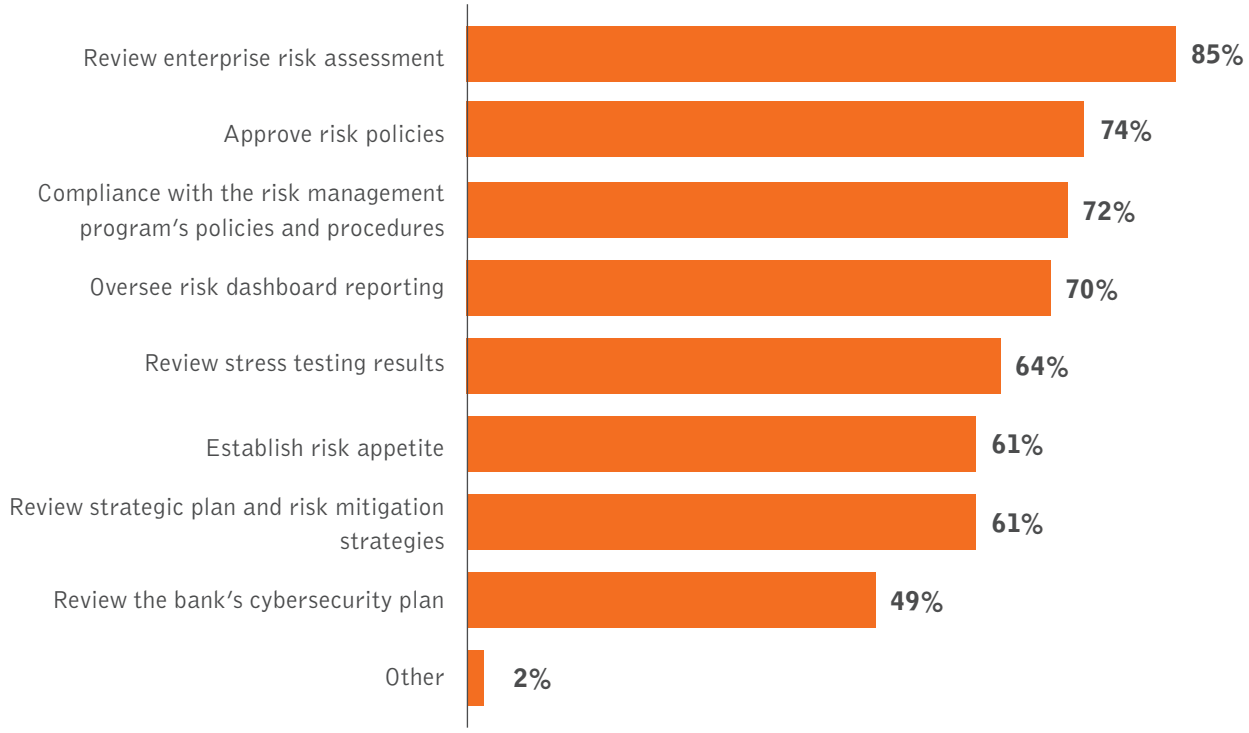
## RISK GOVERNANCE

**1. How does the board at your bank primarily handle risk governance?**




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Through a separate risk committee of the board | 91% | 81% | 42% | 27% | 47% |
| Through a combined audit/risk committee of the board | 9% | 12% | 32% | 30% | 27% |
| Through an audit committee of the board | - | - | 15% | 21% | 14% |
| Through the entire board acting as a single committee | - | 6% | 11% | 21% | 12% |

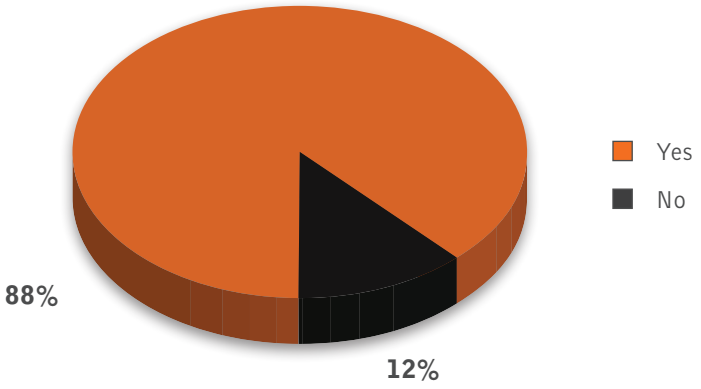
**2. Concerning the committee that governs risk, what is that committee's responsibility for risk governance?**
*Respondents were asked to select all that apply.*




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Review enterprise risk assessment | 100% | 88% | 86% | 76% | 85% |
| Approve risk policies | 91% | 56% | 72% | 82% | 74% |
| Compliance with the risk management program's policies and procedures | 82% | 75% | 72% | 68% | 72% |
| Oversee risk dashboard reporting | 82% | 94% | 66% | 62% | 70% |
| Review stress testing results | 91% | 69% | 65% | 53% | 64% |
| Establish risk appetite | 91% | 62% | 55% | 65% | 61% |
| Review strategic plan and risk mitigation strategies | 64% | 75% | 51% | 74% | 61% |
| Review the bank's cybersecurity plan | 64% | 38% | 45% | 59% | 49% |
| Other | 18% | - | 1% | - | 2% |

| How is risk governed in committee? | Audit/risk committee | Entire board | Audit committee | Risk committee | Total |
|---|---|---|---|---|---|
| Review enterprise risk assessment | 86% | 50% | 72% | 98% | 85% |
| Approve risk policies | 78% | 75% | 44% | 80% | 74% |
| Compliance with the risk management program's policies and procedures | 81% | 56% | 56% | 75% | 72% |
| Oversee risk dashboard reporting | 69% | 44% | 39% | 87% | 70% |
| Review stress testing results | 53% | 69% | 56% | 72% | 64% |
| Establish risk appetite | 56% | 56% | 22% | 77% | 61% |
| Review strategic plan and risk mitigation strategies | 67% | 81% | 22% | 62% | 61% |
| Review the bank's cybersecurity plan | 53% | 44% | 39% | 51% | 49% |
| Other | 3% | - | - | 3% | 2% |

**3. Does your bank have a chief risk officer or someone who has been officially designated with responsibility for overseeing the bank's risk management program?**




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Yes | 100% | 100% | 92% | 71% | 88% |
| No | - | - | 8% | 29% | 12% |

| Financial Performance | Median ROE | Median ROA |
|---|---|---|
| Yes | 9.2 | 1.0 |
| No | 7.3 | 0.8 |

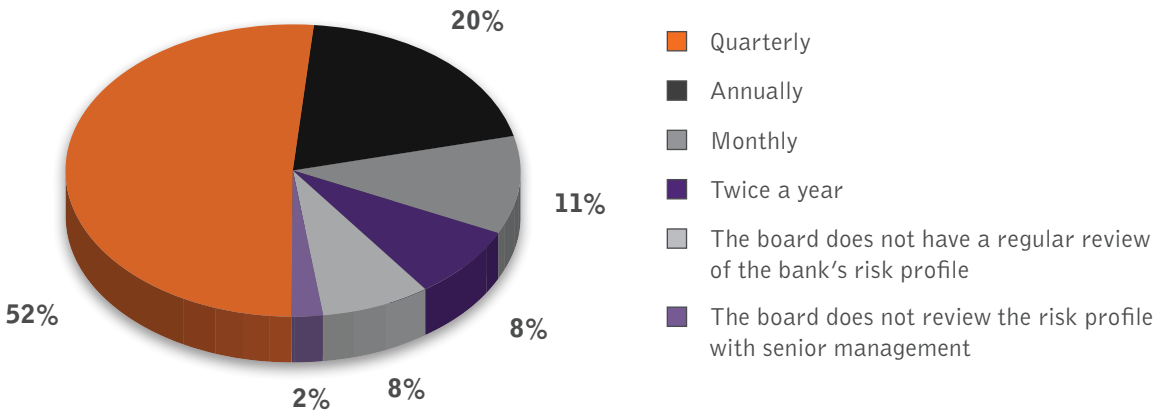
**4. How often do the following meet with the chief risk officer or equivalent?**

| BOARD | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| Every board meeting | 60% | 50% | 48% | 39% | 47% |
| Quarterly | 10% | 17% | 24% | 39% | 25% |
| Irregularly | 20% | 8% | 10% | 9% | 11% |
| Annually | - | 25% | 10% | 4% | 9% |
| Never | - | - | 4% | 9% | 4% |
| Twice a year | 10% | - | 4% | - | 3% |

| RISK COMMITTEE | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| Quarterly | 40% | 67% | 72% | 70% | 67% |
| Every board meeting | 60% | 33% | 18% | 13% | 23% |
| Never | - | - | 6% | 4% | 4% |
| Twice a year | - | - | 2% | 9% | 3% |
| Irregularly | - | - | 2% | 4% | 2% |

| AUDIT COMMITTEE | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| Quarterly | 30% | 33% | 68% | 83% | 63% |
| Every board meeting | 30% | 50% | 20% | 4% | 21% |
| Irregularly | 30% | 8% | 4% | - | 6% |
| Never | 10% | 8% | 4% | 4% | 5% |
| Twice a year | - | - | - | 9% | 2% |
| Annually | - | - | 4% | - | 2% |

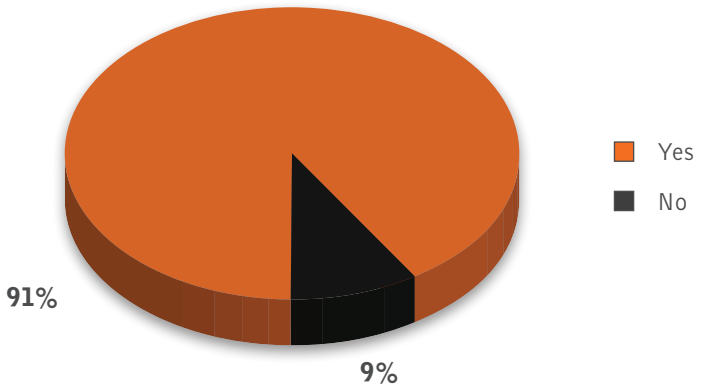
**5. How often does the board review the bank's risk profile and related metrics with senior management?**




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Quarterly | 73% | 38% | 53% | 52% | 52% |
| Annually | - | 19% | 24% | 18% | 20% |
| Monthly | 9% | 19% | 8% | 12% | 11% |
| Twice a year | 9% | 19% | 8% | - | 8% |
| The board does not have a regular review of the bank's risk profile | 9% | 6% | 6% | 12% | 8% |
| The board does not review the risk profile with senior management | - | - | 1% | 6% | 2% |

**6. As a director, do you believe you are appropriately informed on the risks facing your institution?**

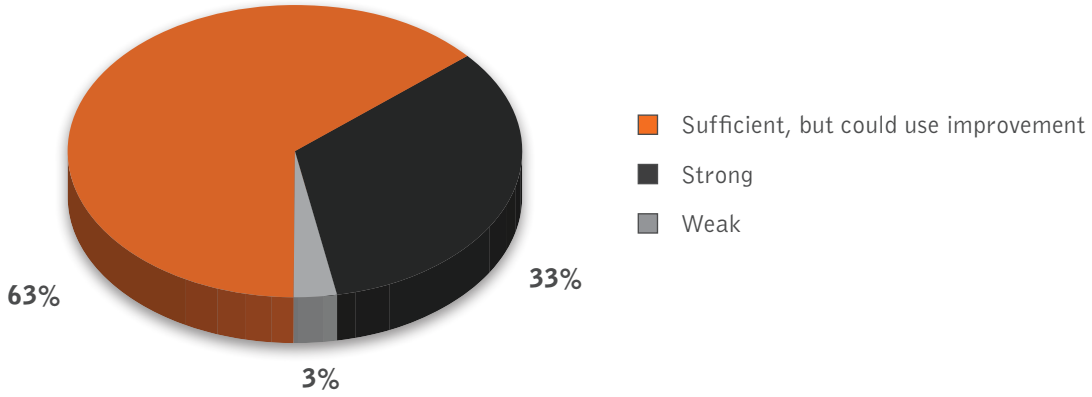
*Only independent directors and chairmen were asked to respond.*



**7. Where do you see an opportunity to be better informed of the risks facing your institution?**

*Respondents were asked to select all that apply. Only independent directors and chairmen who answered 'no' to the previous question were asked to respond.*


**8. How would you assess the board's overall knowledge of risk management?**



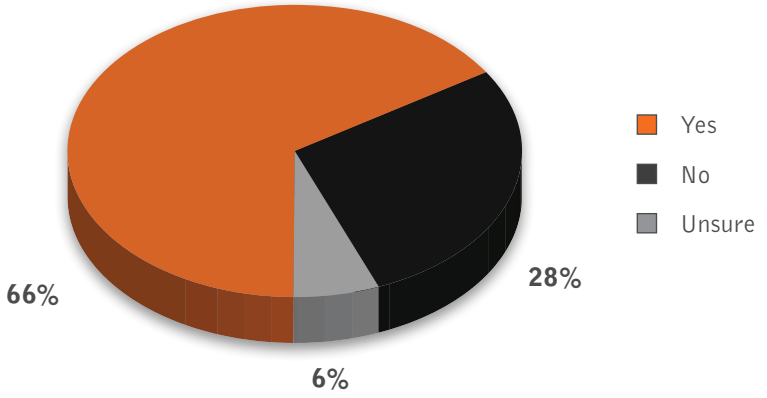

| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Sufficient, but could use improvement | 27% | 60% | 66% | 74% | 63% |
| Strong | 64% | 40% | 33% | 19% | 33% |
| Weak | 9% | - | 1% | 7% | 3% |

**9. As relates to risk expertise, in what areas do you feel the board could most benefit from education and training?**
*Respondents were asked to select all that apply.*


| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Understanding emerging risks such as cybersecurity or Unfair, Deceptive and Abusive Acts or Practices (UDAAP) risks | 73% | 64% | 77% | 68% | 73% |
| Understanding how other banks oversee risk and industry risk oversight best practices | 45% | 71% | 54% | 68% | 59% |
| Understanding new regulations that impact the bank and pose risk | 55% | 36% | 50% | 50% | 49% |
| Understanding key risk indicators (KRIs) and how to use the intelligence for risk oversight | 27% | 36% | 49% | 54% | 46% |
| Overseeing the bank's risk appetite | 9% | 43% | 43% | 54% | 42% |
| Incorporating the strategic plan into the enterprise risk assessment | 36% | 29% | 47% | 39% | 42% |
| Understanding risk in different products | 27% | 50% | 39% | 46% | 41% |
| Using the risk dashboard for strategy adjustments or risk mitigation decisions | - | 29% | 36% | 29% | 30% |
| Using stress test results in risk oversight | - | 36% | 17% | 21% | 19% |

| Bank Asset Size | Officers | Directors | Total |
|---|---|---|---|
| Understanding emerging risks such as cybersecurity or Unfair, Deceptive and Abusive Acts or Practices (UDAAP) risks | 71% | 76% | 73% |
| Understanding how other banks oversee risk and industry risk oversight best practices | 50% | 67% | 59% |
| Understanding new regulations that impact the bank and pose risk | 47% | 54% | 49% |
| Understanding key risk indicators (KRIs) and how to use the intelligence for risk oversight | 47% | 41% | 46% |
| Overseeing the bank's risk appetite | 43% | 43% | 42% |
| Incorporating the strategic plan into the enterprise risk assessment | 41% | 44% | 42% |
| Understanding risk in different products | 31% | 48% | 41% |
| Using the risk dashboard for strategy adjustments or risk mitigation decisions | 28% | 31% | 30% |
| Using stress test results in risk oversight | 19% | 19% | 19% |

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

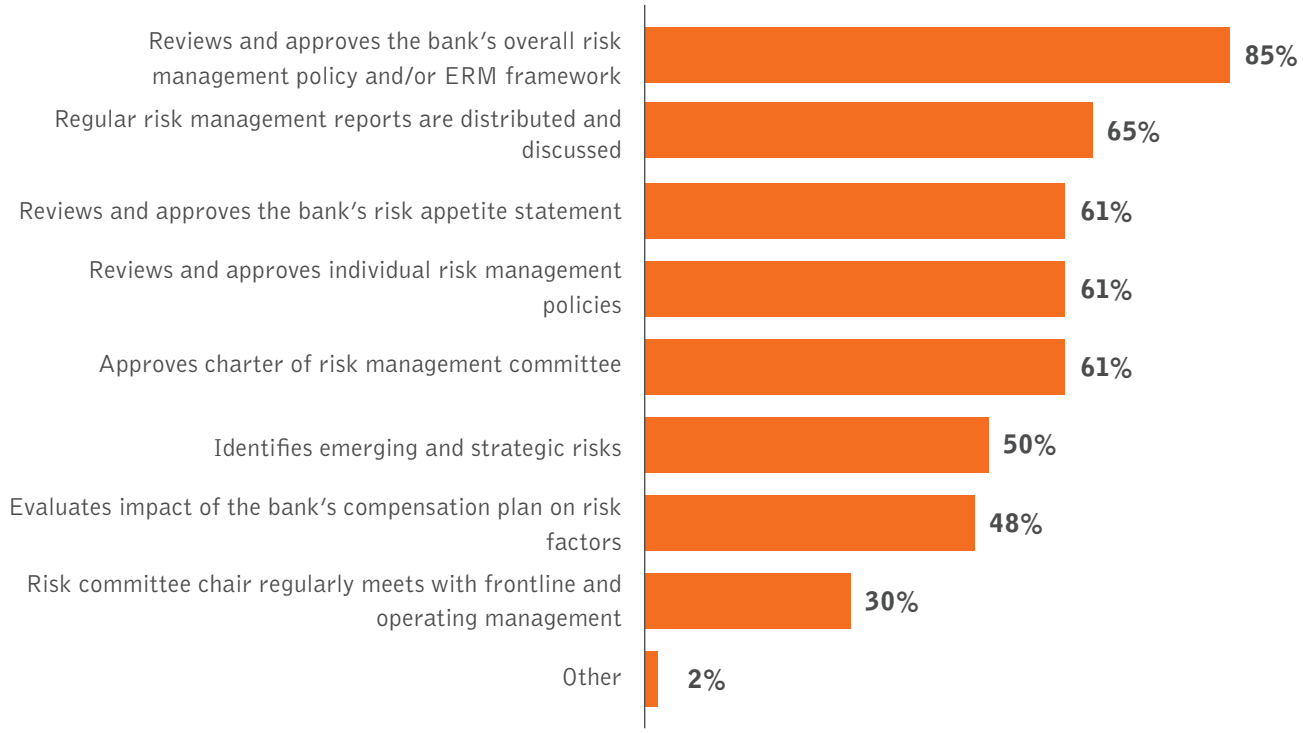



| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Yes | 100% | 80% | 69% | 39% | 66% |
| No | - | 20% | 24% | 54% | 28% |
| Unsure | - | - | 7% | 7% | 6% |

| Financial Performance | Median ROE | Median ROA |
|---|---|---|
| Yes | 9.2 | 1.0 |
| No | 9.0 | 0.9 |

**11. What does the board at your bank do to "set the tone from the top" or establish a risk management culture within the bank?**

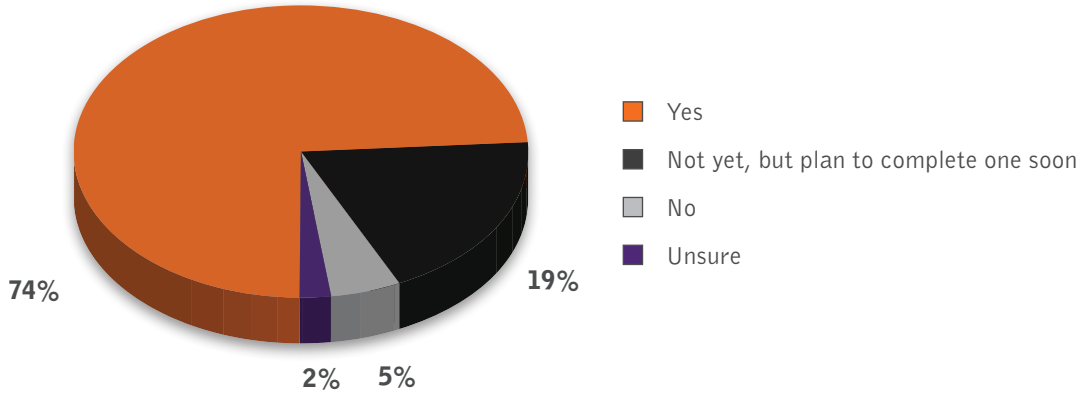
*Respondents were asked to select all that apply.*




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Reviews and approves the bank's overall risk management policy and/or ERM framework | 100% | 93% | 81% | 81% | 85% |
| Regular risk management reports are distributed and discussed | 82% | 80% | 59% | 67% | 65% |
| Reviews and approves the bank's risk appetite statement | 100% | 80% | 49% | 67% | 61% |
| Reviews and approves individual risk management policies | 73% | 60% | 63% | 52% | 61% |
| Approves charter of risk management committee | 100% | 73% | 59% | 44% | 61% |
| Identifies emerging and strategic risks | 36% | 47% | 54% | 48% | 50% |
| Evaluates impact of the bank's compensation plan on risk factors | 73% | 73% | 41% | 41% | 48% |
| Risk committee chair regularly meets with frontline and operating management | 55% | 13% | 31% | 26% | 30% |
| Other | - | - | 3% | 4% | 2% |

## MONITORING RISK

**12. Has the bank completed a formal enterprise risk assessment to identify all inherent and residual risks that it faces?**



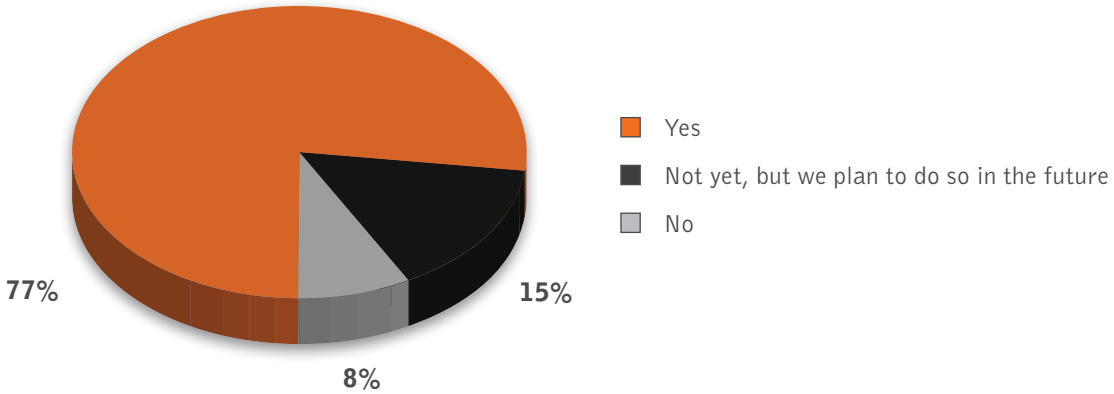

| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Yes | 100% | 80% | 69% | 75% | 74% |
| Not yet, but plan to complete one soon | - | 20% | 24% | 11% | 19% |
| No | - | - | 3% | 14% | 5% |
| Unsure | - | - | 4% | - | 2% |

| Financial Performance | Median ROE | Median ROA |
|---|---|---|
| Yes | 9.2 | 1.0 |
| Not yet, but plan to complete one soon | 8.2 | 0.8 |
| No | * | * |

*Sample size > 10.

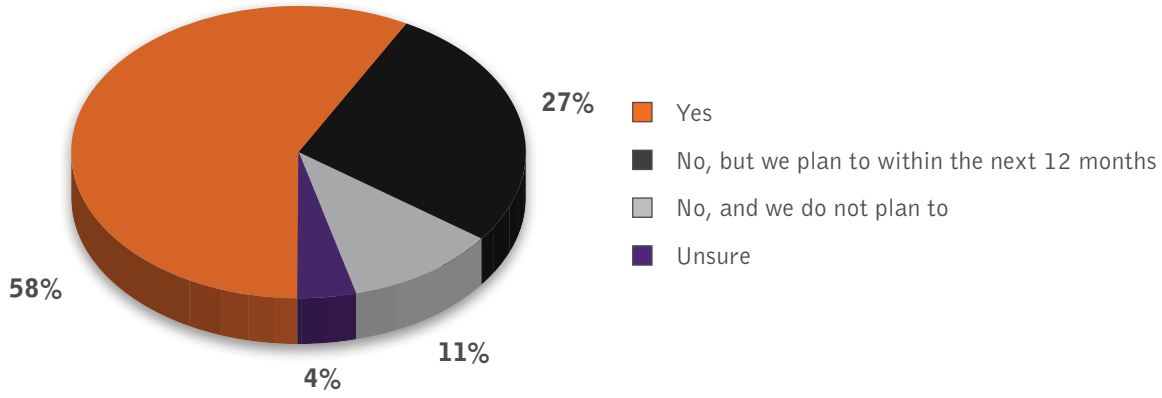
**13. Has the bank incorporated the strategic plan and corporate objectives into the risk assessment?**

*Only respondents who indicated that the bank has completed a risk assessment were asked to respond.*




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Yes | 82% | 75% | 75% | 80% | 77% |
| Not yet, but we plan to do so in the future | 9% | 17% | 17% | 15% | 15% |
| No | 9% | 8% | 8% | 5% | 8% |

**14. Does the bank have a risk appetite statement?**

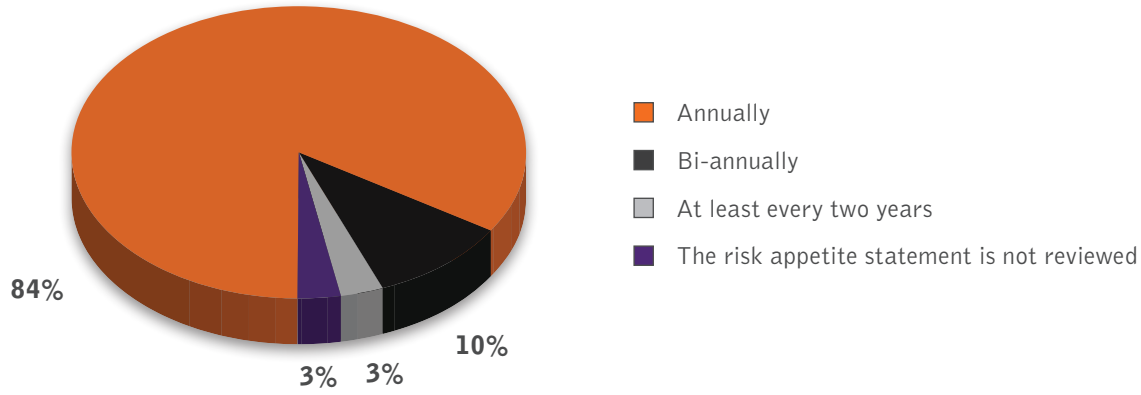



| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Yes | 91% | 86% | 48% | 57% | 58% |
| No, but we plan to within the next 12 months | - | 14% | 34% | 25% | 27% |
| No, and we do not plan to | - | - | 13% | 14% | 11% |
| Unsure | 9% | - | 4% | 4% | 4% |

| Financial Performance | Median ROE | Median ROA |
|---|---|---|
| Yes | 10.0 | 1.0 |
| No, but we plan to within the next 12 months | 8.0 | 0.8 |
| No, and we do not plan to | 8.5 | 1.0 |

**15. How often does the board review your bank's risk appetite statement?**

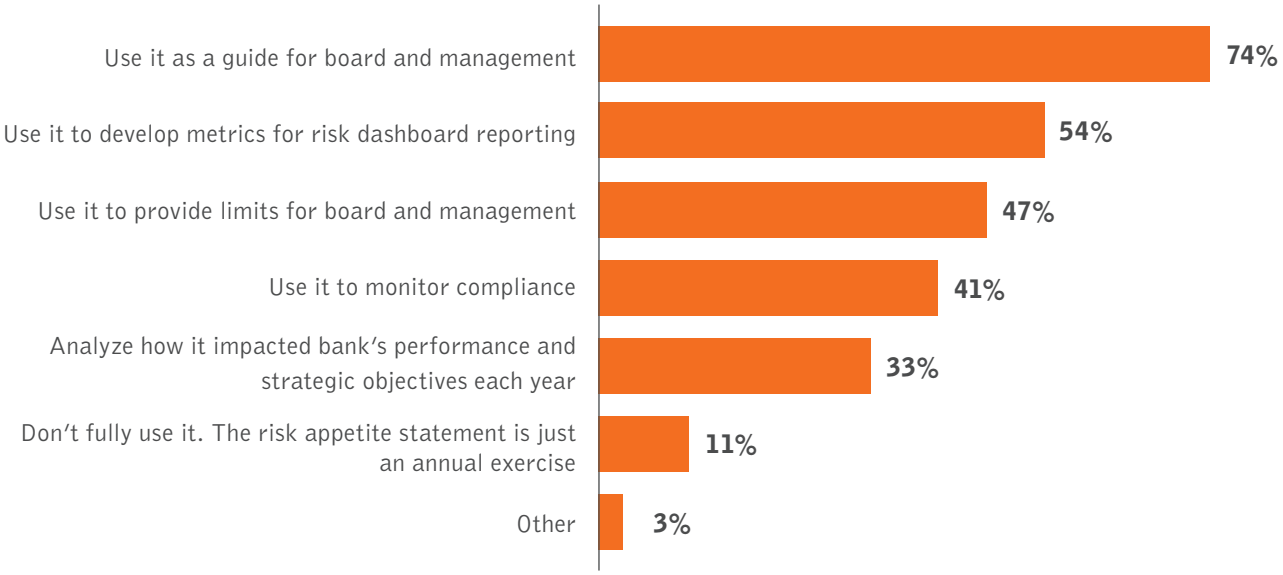
*Only respondents who indicated that the bank has a risk appetite statement were asked to respond.*




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Annually | 90% | 83% | 88% | 75% | 84% |
| Bi-annually | 10% | 8% | 6% | 19% | 10% |
| At least every two years | - | - | 6% | - | 3% |
| The risk appetite statement is not reviewed | - | 8% | - | 6% | 3% |

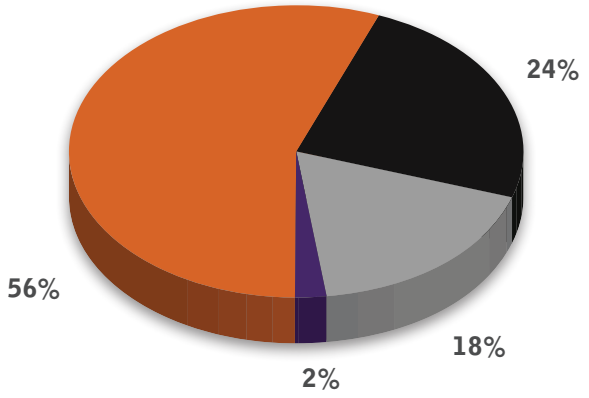
**16 How does your board use the bank's risk appetite statement?**

*Respondents were asked to select all that apply. Only respondents who indicated that the bank has a risk appetite statement were asked to respond.*




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Use it as a guide for board and management | 60% | 92% | 72% | 75% | 74% |
| Use it to develop metrics for risk dashboard reporting | 90% | 50% | 41% | 62% | 54% |
| Use it to provide limits for board and management | 80% | 58% | 41% | 31% | 47% |
| Use it to monitor compliance | 70% | 33% | 34% | 44% | 41% |
| Analyze how it impacted bank's performance and strategic objectives each year | 40% | 25% | 34% | 31% | 33% |
| Don't fully use it. The risk appetite statement is just an annual exercise | 10% | 8% | 12% | 12% | 11% |
| Other | 10% | - | 3% | - | 3% |

**17. Which of the following best describes the maturity level of your bank's enterprise risk management (ERM) program?**




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Intermediate | 45% | 54% | 60% | 52% | 56% |
| Beginner | 9% | 8% | 24% | 41% | 24% |
| Advanced | 45% | 38% | 15% | 4% | 18% |
| Deficient | - | - | 1% | 4% | 2% |

| Financial Performance | Median ROE | Median ROA |
|---|---|---|
| Advanced | 9.8 | 1.0 |
| Intermediate | 9.8 | 1.0 |
| Beginner | 8.5 | 0.8 |
| Deficient | * | * |

*Sample size > 10.

**18. What are your bank's three biggest risk management challenges?**

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

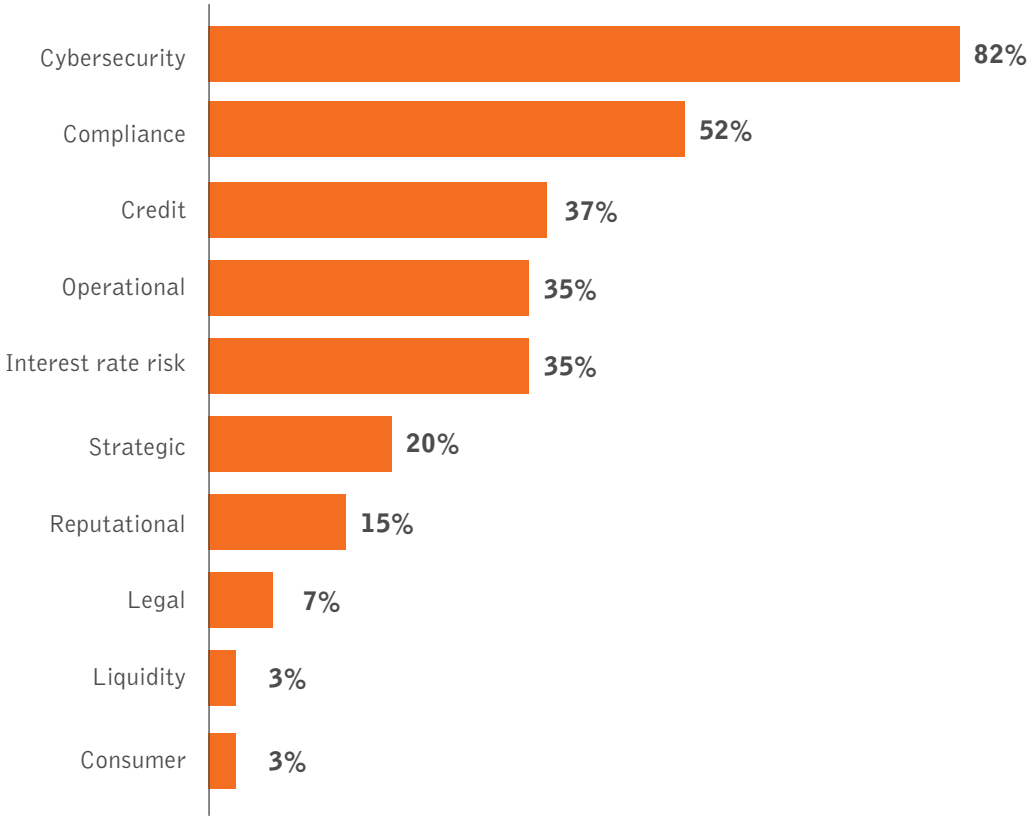

| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Keeping up with regulatory expectations of risk management practices | 82% | 54% | 60% | 56% | 61% |
| Preparing for cyberattacks | 45% | 46% | 53% | 48% | 50% |
| Maintaining the technology and data infrastructure to support risk decision-making | 45% | 62% | 51% | 33% | 48% |
| Creating a culture that supports bank-wide risk communication and assessment | 55% | 23% | 43% | 48% | 43% |
| Clearly defining the institution's risk tolerances | 18% | 23% | 43% | 44% | 39% |
| Having the in-house risk expertise | 18% | 46% | 15% | 33% | 23% |
| Making a financial commitment to technology, consulting or training | 27% | 23% | 15% | 15% | 17% |

**19. Looking at the overall organization, what elements do you incorporate into the bank's culture to support risk management?**

*Respondents were asked to select all that apply.*


| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Regular board training on risk issues | 50% | 38% | 73% | 52% | 62% |
| Strategic plan based on risk assessment and risk appetite statement | 80% | 38% | 51% | 67% | 56% |
| All employees trained on risk | 40% | 46% | 55% | 48% | 51% |
| Chairman and/or risk committee chair regularly meets with line management | 70% | 8% | 45% | 48% | 44% |
| Compensation linked to risk management performance | 40% | 31% | 31% | 30% | 32% |
| Risk appetite statement communicated to all employees | 30% | 23% | 19% | 19% | 21% |
| Other | 10% | - | 1% | - | 2% |

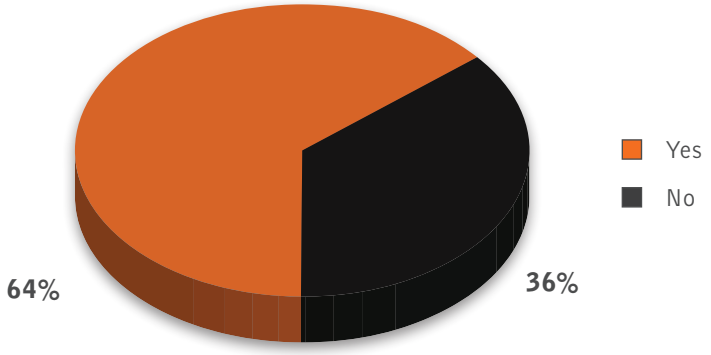
**20. With respect to your bank, what risk categories are you most concerned about?**
*Respondents were asked to select no more than three.*




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Cybersecurity | 82% | 77% | 84% | 78% | 82% |
| Compliance | 45% | 69% | 43% | 70% | 52% |
| Credit | - | 31% | 40% | 48% | 37% |
| Operational | 36% | 38% | 37% | 30% | 35% |
| Interest rate risk | 36% | 15% | 43% | 26% | 35% |
| Strategic | 55% | 15% | 15% | 22% | 20% |
| Reputational | 18% | - | 21% | 7% | 15% |
| Legal | - | 23% | 4% | 7% | 7% |
| Liquidity | - | 8% | 3% | 4% | 3% |
| Consumer | 18% | 8% | 1% | - | 3% |

## CYBERSECURITY

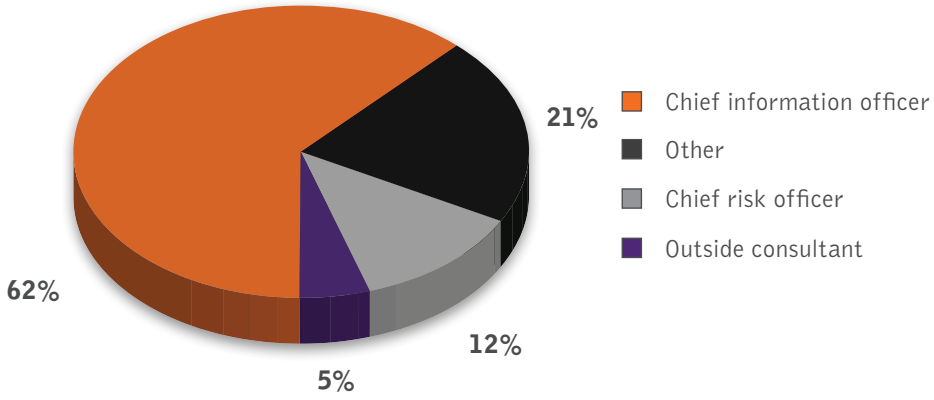
**21. Does your bank have a full-time chief information security officer?**



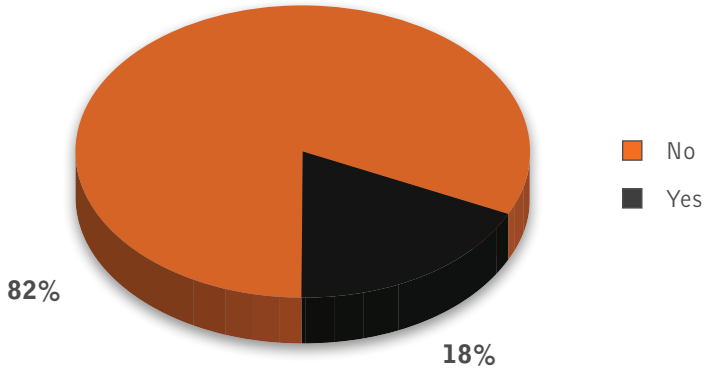

| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Yes | 100% | 75% | 64% | 44% | 64% |
| No | - | 25% | 36% | 56% | 36% |

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

*Only asked of respondents who indicated their bank does not have a full-time chief information security officer.*



**23. Does your board review cybersecurity at every board meeting?**



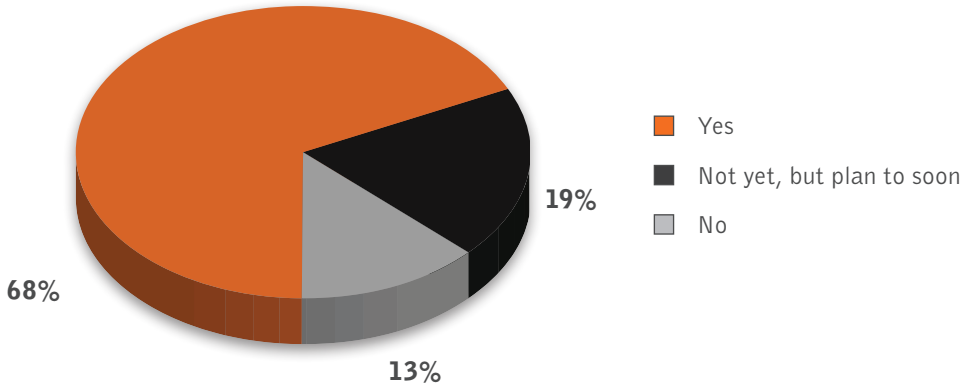

| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| No | 70% | 69% | 82% | 92% | 82% |
| Yes | 30% | 31% | 18% | 8% | 18% |

**24. How would you rate your board's:**

| CYBER-RISK KNOWLEDGE LEVEL? | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| Sufficient, but needs improvement | 73% | 54% | 75% | 69% | 71% |
| Weak | 18% | 23% | 21% | 23% | 21% |
| Strong | 9% | 23% | 4% | 8% | 8% |

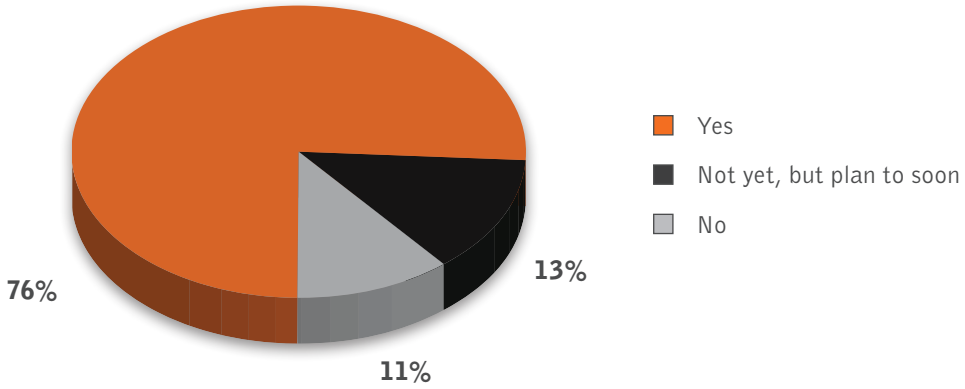
| CYBERSECURITY RISK OVERSIGHT? | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| Sufficient, but needs improvement | 82% | 69% | 68% | 77% | 71% |
| Weak | 9% | 8% | 24% | 12% | 18% |
| Strong | 9% | 23% | 9% | 12% | 11% |

**25. Has your bank performed a cybersecurity risk assessment and gap analysis in line with FFIEC cybersecurity preparedness expectations?**




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Yes | 73% | 85% | 63% | 70% | 68% |
| Not yet, but plan to soon | 18% | 15% | 25% | 7% | 19% |
| No | 9% | - | 12% | 22% | 13% |

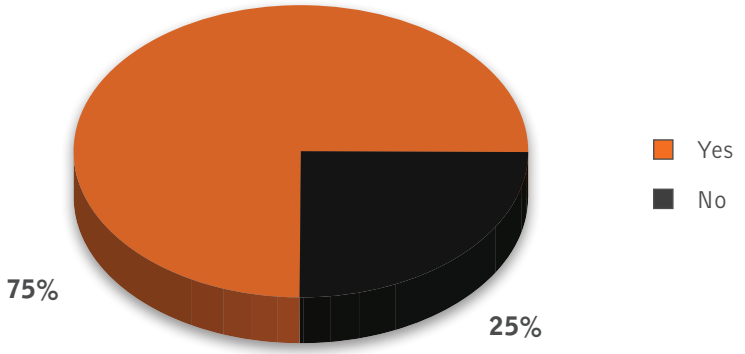
**26. Does your bank have a written cyber-incident management and response plan?**




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Yes | 80% | 85% | 74% | 78% | 76% |
| Not yet, but plan to soon | 20% | 8% | 15% | 7% | 13% |
| No | - | 8% | 12% | 15% | 11% |

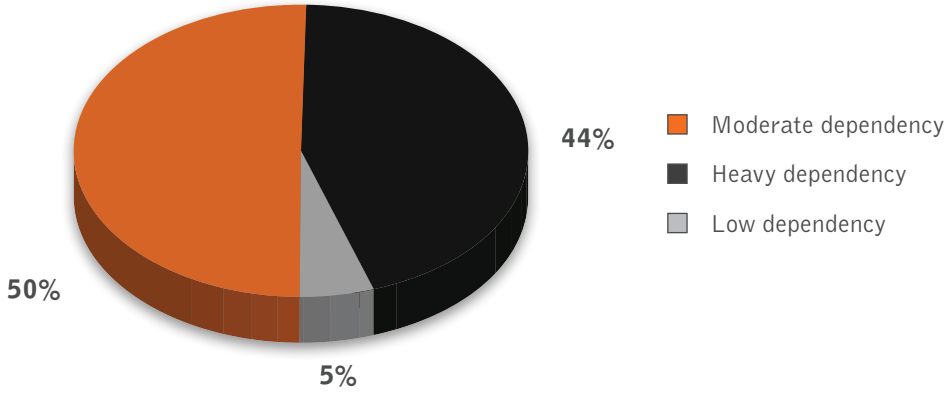
**27. Is your bank's cyber-incident management and response plan regularly tested?**

*Only asked of respondents who indicated their bank has a cyber-incident management and response plan.*




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Yes | 75% | 73% | 73% | 80% | 75% |
| No | 25% | 27% | 27% | 20% | 25% |

**28. How dependent is your bank on vendors for cybersecurity?**




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Moderate dependency | 60% | 25% | 53% | 52% | 50% |
| Heavy dependency | 40% | 58% | 42% | 44% | 44% |
| Low dependency | - | 17% | 5% | 4% | 5% |

**29. How would you rate your institution's:**

| CYBERSECURITY PREVENTATIVE AND DETECTIVE CONTROLS? | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| Sufficient, but needs improvement | 73% | 33% | 57% | 48% | 54% |
| Strong | 27% | 67% | 42% | 52% | 45% |
| Weak | - | - | 2% | - | 1% |

| CYBERSECURITY VENDOR OVERSIGHT? | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| Sufficient, but needs improvement | 82% | 58% | 68% | 70% | 69% |
| Strong | 18% | 33% | 28% | 30% | 28% |
| Weak | - | 8% | 5% | - | 3% |

**30. When it comes to preparing for a cyberattack or data breach, how prepared is your bank?**
*Repondents were asked to rate the following factors on a scale of 1 to 5, with 5 indicating the most prepared and 1 indicating the least prepared.*

| RECEIVING LATEST INTELLIGENCE ON EMERGING THREATS | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| 1 | - | - | 2% | - | 1% |
| 2 | - | 9% | 3% | 12% | 6% |
| 3 | 30% | 9% | 31% | 36% | 30% |
| 4 | 40% | 55% | 48% | 44% | 47% |
| 5 | 30% | 27% | 16% | 8% | 17% |

| BLOCKING DDOS ATTACKS | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| 1 | - | - | 3% | - | 2% |
| 2 | - | - | 3% | 12% | 5% |
| 3 | 20% | 9% | 25% | 16% | 21% |
| 4 | 60% | 55% | 59% | 68% | 61% |
| 5 | 20% | 36% | 10% | 4% | 12% |

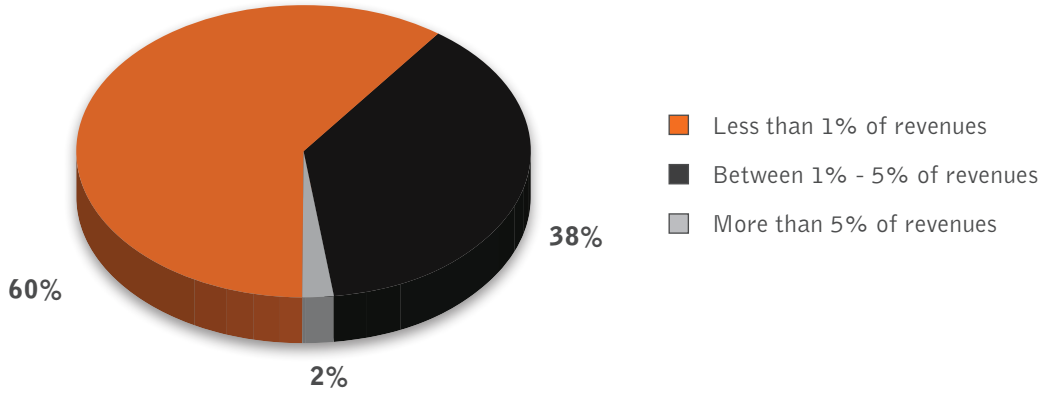
| DETECTING PRIVILEGED USER ACCESS COMPROMISE | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| 1 | - | - | 3% | - | 2% |
| 2 | 10% | 9% | 3% | 12% | 7% |
| 3 | 20% | - | 31% | 28% | 26% |
| 4 | 50% | 64% | 52% | 52% | 53% |
| 5 | 20% | 27% | 10% | 8% | 12% |

| DETECTING MALWARE | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| 1 | - | - | 3% | - | 2% |
| 2 | - | - | 3% | 12% | 5% |
| 3 | 30% | 9% | 13% | 16% | 15% |
| 4 | 40% | 55% | 62% | 64% | 60% |
| 5 | 30% | 36% | 18% | 8% | 19% |

| CUSTOMER AND LAW ENFORCEMENT NOTIFICATION | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| 1 | - | - | 2% | 4% | 2% |
| 2 | - | - | 15% | 8% | 10% |
| 3 | 20% | 27% | 28% | 24% | 26% |
| 4 | 60% | 45% | 41% | 44% | 44% |
| 5 | 20% | 27% | 15% | 20% | 18% |

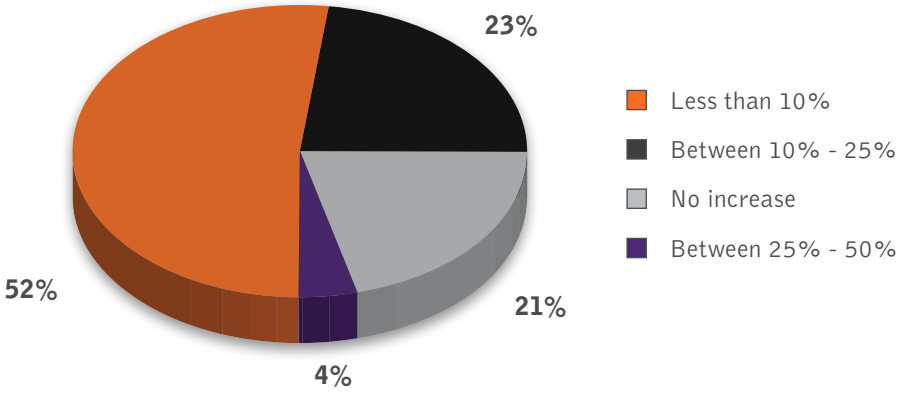
| STATE LAW DATA BREACH COMPLIANCE | | | | | |
|---|---|---|---|---|---|
| **Bank Asset Size** | **>$10B** | **$5B - $10B** | **$1B - $5B** | **<$1B** | **Total** |
| 1 | - | - | 3% | 4% | 3% |
| 2 | - | - | 7% | 8% | 6% |
| 3 | 30% | 18% | 31% | 32% | 30% |
| 4 | 30% | 45% | 43% | 40% | 41% |
| 5 | 40% | 36% | 16% | 16% | 21% |

**31. How large was your bank's cybersecurity budget for fiscal year 2014?**




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Less than 1% of revenues | 38% | 50% | 59% | 72% | 60% |
| Between 1% - 5% of revenues | 62% | 50% | 38% | 28% | 38% |
| More than 5% of revenues | - | - | 3% | - | 2% |

**32. How much has your bank's cybersecurity budget increased for FY 2015?**




| Bank Asset Size | >$10B | $5B - $10B | $1B - $5B | <$1B | Total |
|---|---|---|---|---|---|
| Less than 10% | 57% | 50% | 56% | 42% | 52% |
| Between 10% - 25% | 43% | 30% | 23% | 15% | 23% |
| No increase | - | 20% | 18% | 35% | 21% |
| Between 25% - 50% | - | - | 3% | 8% | 4% |