



ASSOCIATION FOR
FINANCIAL
PROFESSIONALS

2018 AFP®

RISK SURVEY REPORT

Key Findings

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Strategic risks such as competitor and industry disruption, and technological risks such as cyber threats and new technologies, overwhelmingly rank as the top risks today and over the next three years. This finding from the *2018 AFP Risk Survey* highlights the deep and disruptive changes across all economic sectors.

In order to increase the efficiency of financial analysis and management in a rapidly changing business environment, many organizations are turning to technology-based solutions such as blockchain, artificial intelligence (AI) and robotic process automation. However, a majority of survey respondents report that they are only moderately prepared for the new business risks that may in turn be created – especially potential cyber, business operations and regulatory risks.

Management is increasingly faced with the difficult challenge of weighing the value of deploying these new solutions against an uncertain external risk landscape, often exacerbated by non-traditional competitors and commercial demands for shorter implementation timeframes. The survey finds that management often lacks the tools to consistently evaluate the qualitative and quantitative benefits against this quickly evolving risk profile.

Finance and treasury leaders have a critical role in helping their organizations understand how to evaluate the risks and opportunities associated with strategic change. We hope this survey provides you with valuable data to benchmark your organization's approach to the rapidly transforming and increasingly uncertain business environment.

Alex Wittenberg
Executive Director, Marsh & McLennan Companies' Global Risk Center

Introduction

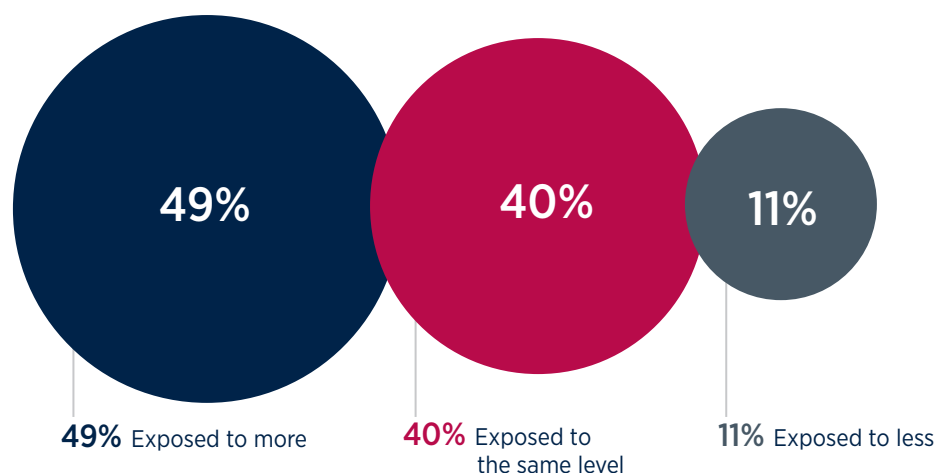
In the current risk landscape, high levels of uncertainty in earnings continue to dominate treasury and finance professionals' concerns. Forty-nine percent of finance professionals believe their organizations are exposed to greater earnings uncertainty currently than three years ago and 40 percent indicate the level of uncertainty is unchanged. These numbers are consistent with those reported in the *2017 AFP Risk Survey* (reflecting data from 2016).

The October 2017 edition of *AFP Corporate Cash Indicators*® revealed that U.S. businesses accumulated cash in the third quarter of 2017 at a far more significant pace than anticipated. This suggests that finance professionals are cautious about the economy and continue to focus on building cash reserves.

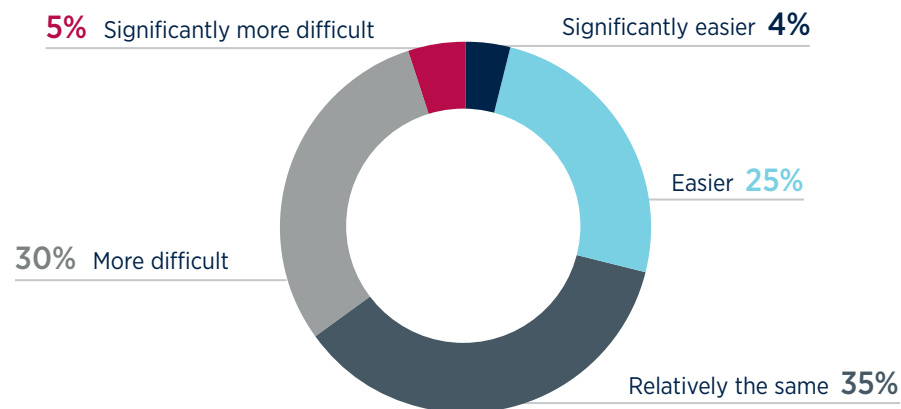
The current political climate in the U.S. has also been shrouded in uncertainty: at the time this survey was in the field, treasury and finance professionals had yet to see the the pro-business agenda by the new administration take shape. In addition, geopolitical concerns—due to factors such as the instability being demonstrated by the North Korean regime—are creating concern among treasury and finance professionals.

Forecasting risk continues to be a challenge for a majority of finance professionals. Seventy-one percent of survey respondents report that forecasting risk is either as difficult or more difficult as it was three years ago. That percentage is lower than the 84 percent who held the same view last year. At the other end of the spectrum, 29 percent of survey respondents indicate that forecasting risk is easier than it was three years ago, significantly more than the 17 percent who held the same view in last year's survey.

Earnings Uncertainty Today Versus Three Years Ago (2014)
(Percentage Distribution of Organizations)



Difficulty of Forecasting Risk Today Versus Three Years Ago (2014)
(Percentage Distribution of Respondents)



Introduction continued

There is a consensus among finance professionals that forecasting will only become more difficult in the future. Fifty-four percent of survey respondents anticipate forecasting risk will be more difficult in three years; only 16 percent believe it will be easier.

As organizations are tasked with managing risk in this uncertain environment, they are showing keen interest in new risk-management supporting technology. Treasury and finance professionals are at various points on the learning curve for using these new and emerging technologies. This is evident when we observe that some organizations are quicker to adopt new tools than are others; still, most are focused on these emerging technologies and any disruption those technologies might bring. They are also cognizant that the adoption of any new technology will have a two-fold effect: it will help them manage risk more efficiently, but may also expose them to new risk. This raises a question: will finance professionals be able to mitigate new risk and utilize new technologies efficiently in order to manage such risk?

Results from The *AFP 2017 Mindshift Survey*, conducted during “AFP 2017” in San Diego, suggest that practitioners are considering how new technologies—such as artificial intelligence, blockchain and robotic

process automation— may disrupt or improve Treasury and Finance functions. However, the research highlighted a variety of questions about the use of these technologies and that many practitioners may not yet be ready to manage the changes coming in the wake of such technologies.

This *Association for Financial Professionals® (AFP) 2018 Risk Survey* report is the seventh in the series. It provides insights into the greatest risks impacting organizations currently as well as in the next three years. Results also reveal the extent to which organizations use emerging technologies to manage risk within the Treasury and Finance functions and if those technologies are effective. The survey also examines how prepared organizations are to use technology to manage risks. Responses from 614 senior-level corporate practitioner members form the basis of this report.

The AFP Risk Survey is once again supported by Marsh & McLennan Companies’ Global Risk Center. AFP thanks Marsh & McLennan Companies for its support of the survey, for help in crafting the survey questions and for sharing its insights into current risk issues. The Research Department of the Association of Financial Professionals® is solely responsible for the content of this report.



HIGHLIGHTS



Few treasury and finance professionals are worried about emerging technologies even as those technologies expose organizations to new risks.

- A majority of survey respondents cites Artificial Intelligence (AI), Robotic Process Automation and Data Engineering as technologies that could expose their companies to some risks. However, many feel that the use of other emerging technologies will not cause an uptick in new risks.
- **Treasury and finance professionals perceive new technology risks through a traditional cybersecurity lens...** Cybersecurity risk is among the various risks cited as a consequence of using new technologies. Operational risks and business continuity risks are also cited as consequences from the introduction of new technologies to the Treasury and Finance function.
- **...and cybersecurity and strategic risks continue to be the top concerns disproportionately preoccupy treasury and finance professionals now and over the next three years.** Majority of survey respondents cited both these risks as top concerns currently being faced by their organizations and they continue to remain high on their radar when they look ahead.
- **A majority of organizations has no Board-approved risk-appetite policy.** As companies navigate complex strategic risks, senior management has not emphasized defining formal risk appetite statements and instead are relying on assumptions of a commonly understood implicit risk appetite.
- **One-third of organizations are unprepared for new risks arising from the implementation of new technology—and only 14 percent are confident in their preparations.** Thirty two percent of survey respondents admits their companies are unprepared to manage any new risks that arise from the implementation of new technology, only 14 percent are confident in their preparation for new risks.



02

KEY FINDINGS



RISK ALERT



85%



67%



50%



30%



KEY FINDING 1

Strategic Risks and Cybersecurity Risks are of Significant Concern

Treasury and finance professionals are well aware that their organizations are increasingly exposed to a myriad of risks. As companies' scope of operations widens, this issue will become more complex. The majority of respondents, 65 percent, ranks strategic risks (which include competitor and industry disruptions, among others) as the top risks impacting their organizations. Over half (52 percent) report that cybersecurity risks need to be watched closely.

Ranked a distant third is political risks and regulatory uncertainty within the U.S. In early 2017, for the first time in many months, finance professionals displayed a new sense of optimism and were more confident about the business environment (*AFP Corporate Cash Indicators, January 2017*). With a new presidential administration that promised a pro-business agenda perceived to be beneficial to the economy, many business leaders seemed more assured about the future. But continued gridlock in Washington, D.C., North Korea's ongoing nuclear threats and the delay in passing corporate tax reform legislation have contributed to the concerns about the political environment.

Looking Ahead: Strategic, Cybersecurity and Technology Risks will Dominate

Looking ahead, survey respondents reveal that strategic, disruptive technology and cyberrisks remain the top areas of concern for the next three years. In addition to these risks, we anticipate that in the future, financial risks will also be on the radar of treasury and finance professionals, suggesting the presence of risk in organizations' strategies, from the business environment, and possible regulatory risk resulting from any new reforms implemented.



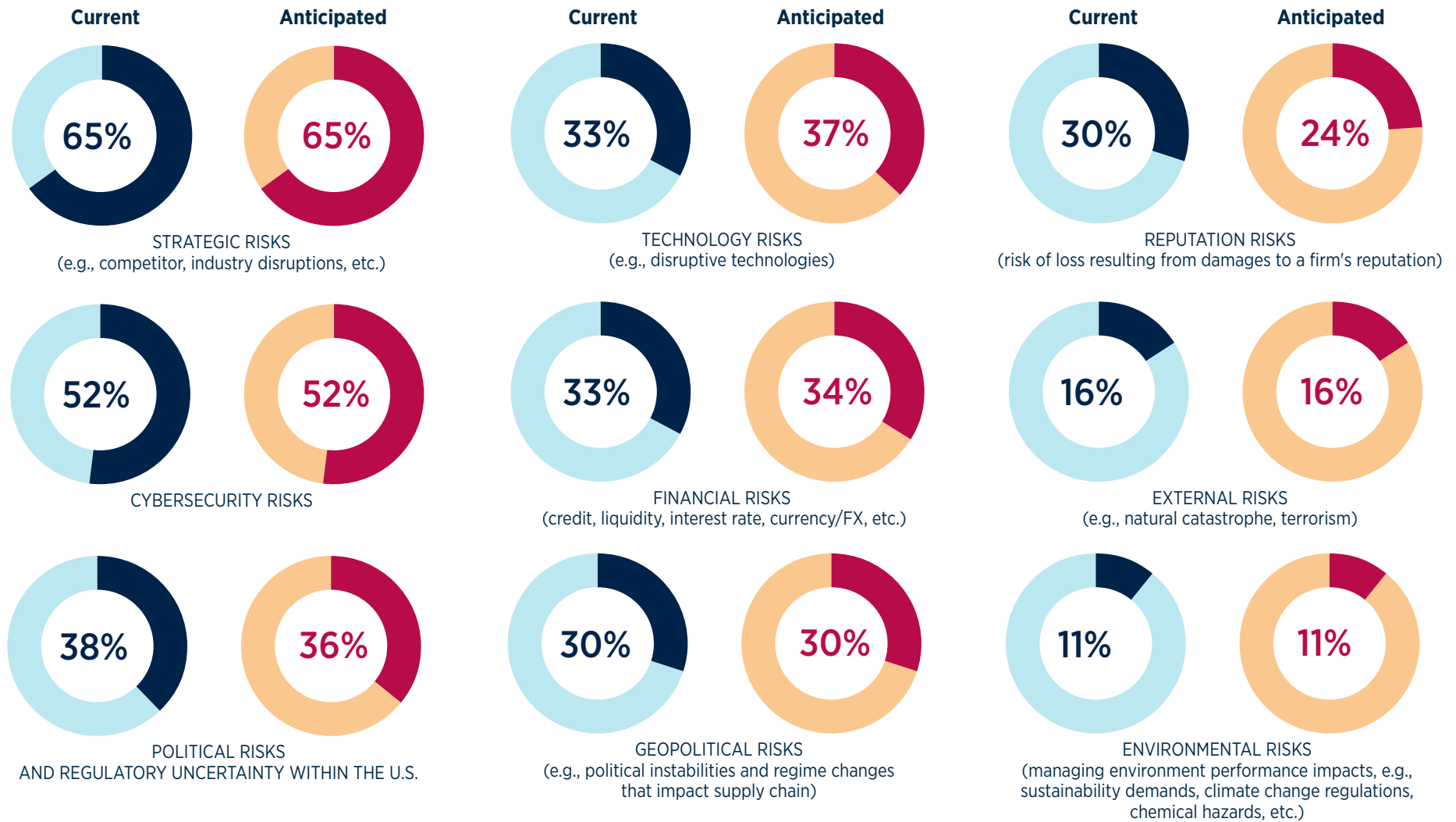
“The majority of respondents ranks strategic risks as the top risk impacting their organizations”



Strategic Risks and Cybersecurity Risks are of Significant Concern continued

Current Risks and Anticipated Concerns for Risks Over Next Three Years

(Percent of Respondents Who Rank Risks in Top Three)





KEY FINDING 2

A Formal Risk Appetite Statement is Missing at a Majority of Companies, although that Could be Changing

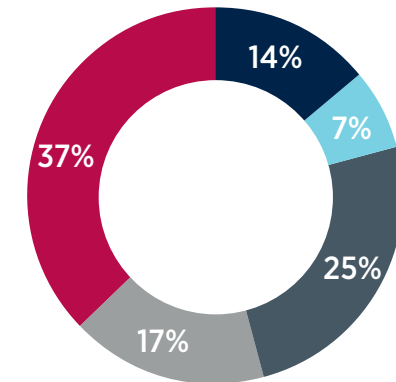
As organizations navigate both the risks and opportunities in a shifting risk landscape, management at all levels of an organization will face the daily question: should we take this risk? Yet, many organizations have not defined their risk appetite to provide clear guidelines to decision making. Risk appetite (as defined by the Institute of Risk Management) is the *"amount and type of risk that an organization is willing to take in order to meet their strategic objectives."* Although 54 percent of organizations currently lack a formal risk appetite statement, 17 percent are in the process of developing one. Slightly less than half (46 percent) indicates their companies have a risk appetite statement, and only a quarter of those respondents indicates their organization's risk appetite statement is both qualitative and quantitative.

Treasury and finance professionals are often perceived as the risk managers at their organizations. They need to consider implied methodologies that come from the CFO in terms

of applying hurdle rates and internal measures. Managing cash is one example: The majority of cash balances in money funds in 2016 shifted from prime to government money market funds as a result of the floating NAV which primarily increased the risk of principal loss. The risk appetite statement can be applied in the calculation to make acquisitions, spend cap ex, and develop Weighted Average Cost of Capital (WACC) calculations. This can be further quantified by the utilization of currency/country risk for business, credit ratings for company subsidiaries, following specific risk methodologies and employing insurance-related products as well.

As noted, treasury and finance professionals are managing risks for their function even though that rule may not be explicit, and having a formal risk appetite which is pervasive throughout an organization is a core tool for performance management that helps bring discipline to major strategy decisions.¹ The importance of a defined risk appetite in integrated risk with strategic decision making and performance is also highlighted in the 2017 update of the COSO Enterprise Risk Management Framework.²

Presence of a Formal Risk Appetite Statement
(Percentage Distribution of Organizations)



- Yes, primarily qualitative
- Yes, primarily quantitative
- Yes, both
- Currently in process of developing
- Do not have a formal risk-appetite statement

1. Defining Your Risk Appetite: The Importance Of Taking a Quantitative and Qualitative Approach, AFP and Oliver Wyman, 2012

2. Enterprise Risk Management Framework: Integrating with Strategy and Performance, COSO.org, 2017

Efforts to Develop a Risk Appetite

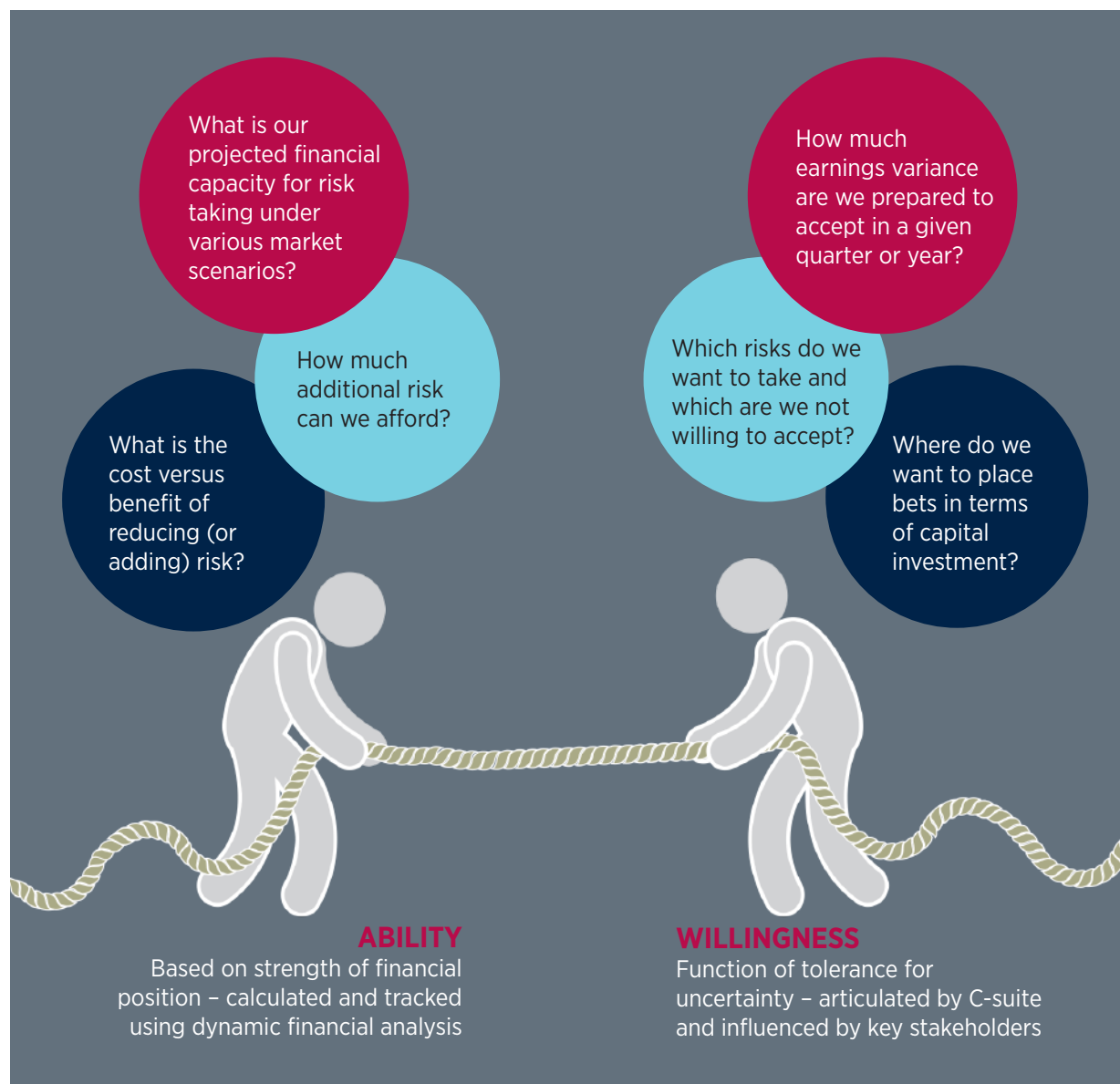
Finance professionals report that their companies are using various practices in an effort to develop a defined risk appetite and to implement associated guidelines in organizational processes. Two-thirds of organizations have implemented strategy adjustments to align to risk appetite. Other practices cited by respondents include:

- Updated revised financial planning processes (cited by 60 percent of respondents)
- Established financial buffers (43 percent)
- Revised Board risk reports to align risk appetite statements (42 percent)
- Undertaken stress testing to assess (40 percent)

Organizations that have not developed a defined risk appetite statement have not done so primarily because one-third of their senior management considers it implicit. In a rapidly shifting business environment, implicit assumptions can lead to a wide range of risk management approaches. Other reasons for not developing a defined risk appetite statement include:

- Other benchmarks/guidelines are used to manage risks (cited by 23 percent of respondents)
- Not perceived important to guide risk management (22 percent)
- Concept viewed as too broad to support effective decision making (20 percent)

Developing a Holistic View of Company Tolerances



Source: *Defining Your Risk Appetite. The Importance of Taking a Quantitative and Qualitative Approach*, AFP and Oliver Wyman 2012



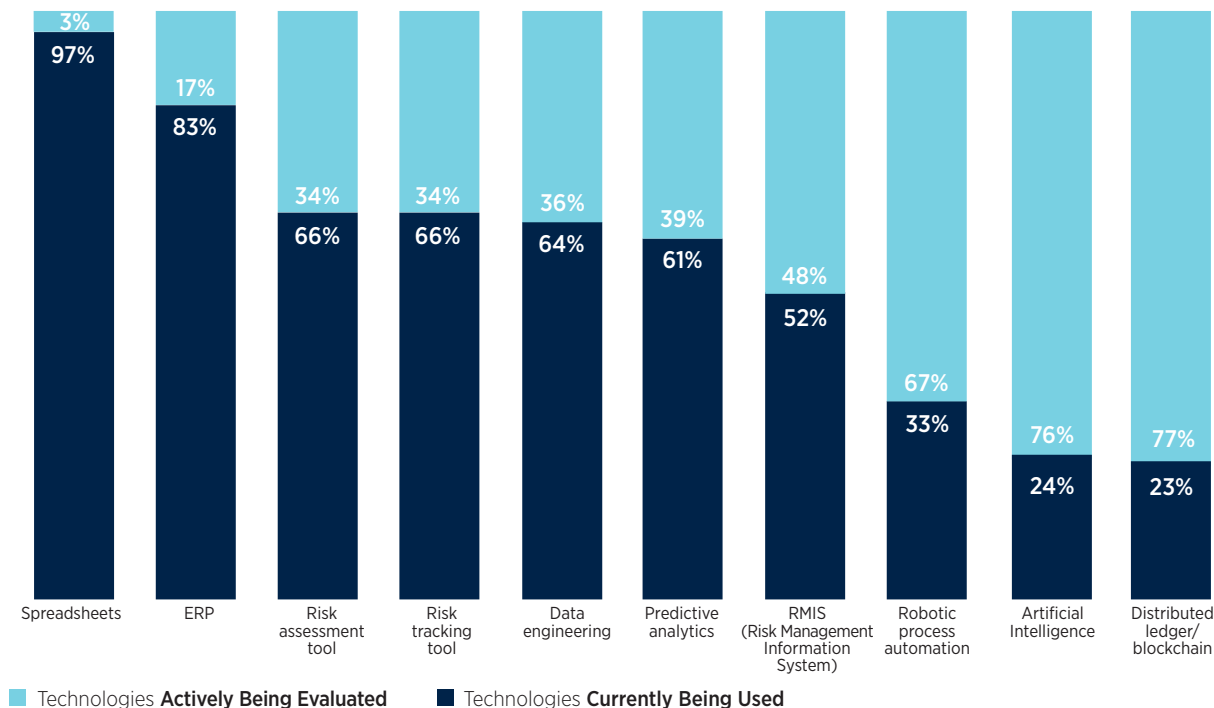
KEY FINDING 3

Spreadsheets (still) Being Used to Manage Risk within Treasury and Finance Function

Organizations are adopting various technologies to manage, track and analyze risk within the Treasury and Finance function. A vast majority of finance professionals—97 percent—report that spreadsheets are currently being used at their companies to manage risk. Despite spreadsheet use dominance, few respondents (28 percent) view them as an efficient risk management tool. Although spreadsheets are customizable, they do have drawbacks: version control, knowledge of formulas, links and other functionalities are restricted to key personnel and so may have replication issues. However, since most treasury and finance staff are comfortable with spreadsheets, they perceive spreadsheets as a tried and tested tools and less risky than adopting a new technology which will have a steeper learning curve but may be more efficient in managing risk.

Beyond spreadsheets, Enterprise Resource Planning (ERP) data engineering and predictive analytics are other widely used tools.

Technologies Being Used or Evaluated to Manage Risk within Treasury and Finance Function (Percent of Organizations)



Distributed Ledger/Blockchain and Artificial Intelligence Evaluated to Manage Risk within Treasury and Finance Function

While spreadsheets still dominate in finance-specific tasks, many practitioners are actively evaluating other technologies to help manage risk within the Treasury and Finance function. Distributed ledger/blockchain, artificial intelligence and robotic process automation are all being considered by most survey respondents.

Additional data on organizations' approach to emerging technologies are found in the *AFP 2017 MindShift Survey*. Fifty percent of respondents to that survey indicate that blockchain and the internet of things (IoT) will have a moderate or significant impact on their profession. The survey also found that 48 percent of respondents do not plan to implement IoT technology. The percentage is even higher for blockchain (51 percent), artificial intelligence (54 percent) and robotic process automation (55 percent).



KEY FINDING 4

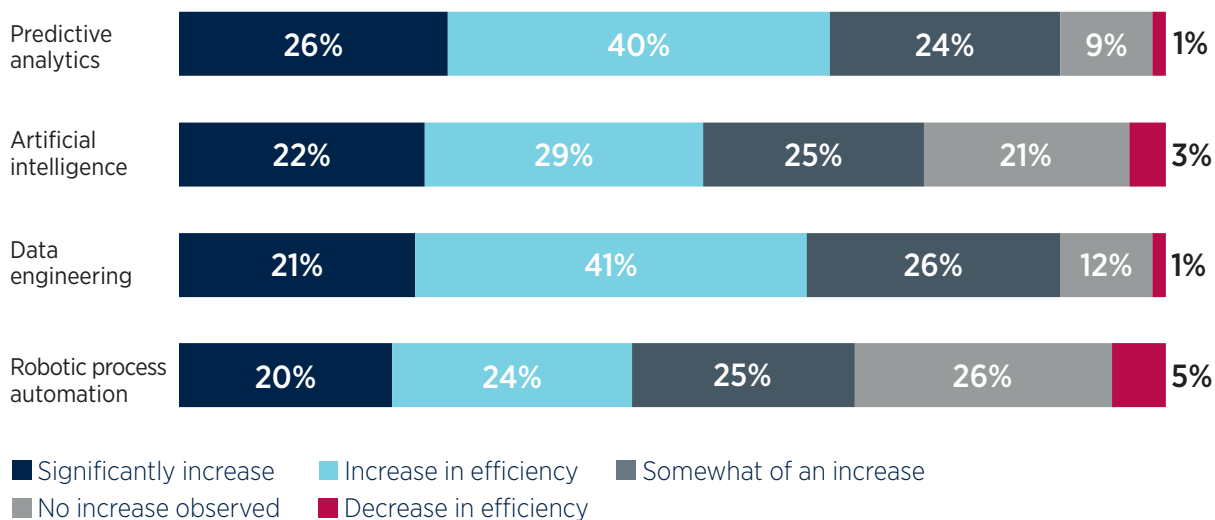
Predictive Analytics Most Likely to Increase Risk Management Efficiency

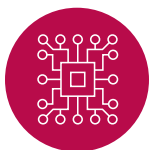
Predictive analytics is a technology being used at some organizations—and being evaluated at others—to manage risk within Treasury and Finance. Two-thirds of survey respondents believe that this technology will increase risk management efficiency. Other technologies that survey respondents believe will increase efficiency of risk management include:

- RMIS (Risk Management Information Systems) **63 percent**
- Data engineering **62 percent**
- Risk assessment tool **62 percent**
- Risk tracking tool **59 percent**

Extent Technologies Being Used Currently/Evaluated are Increasing Efficiencies of Risk Management or Have the Potential to do so Within Treasury and Finance Function

(Percentage Distribution of Respondents)





KEY FINDING 5

Some Emerging Technologies are Exposing Organizations to New Risks, but Few Practitioners Report a Significant Impact

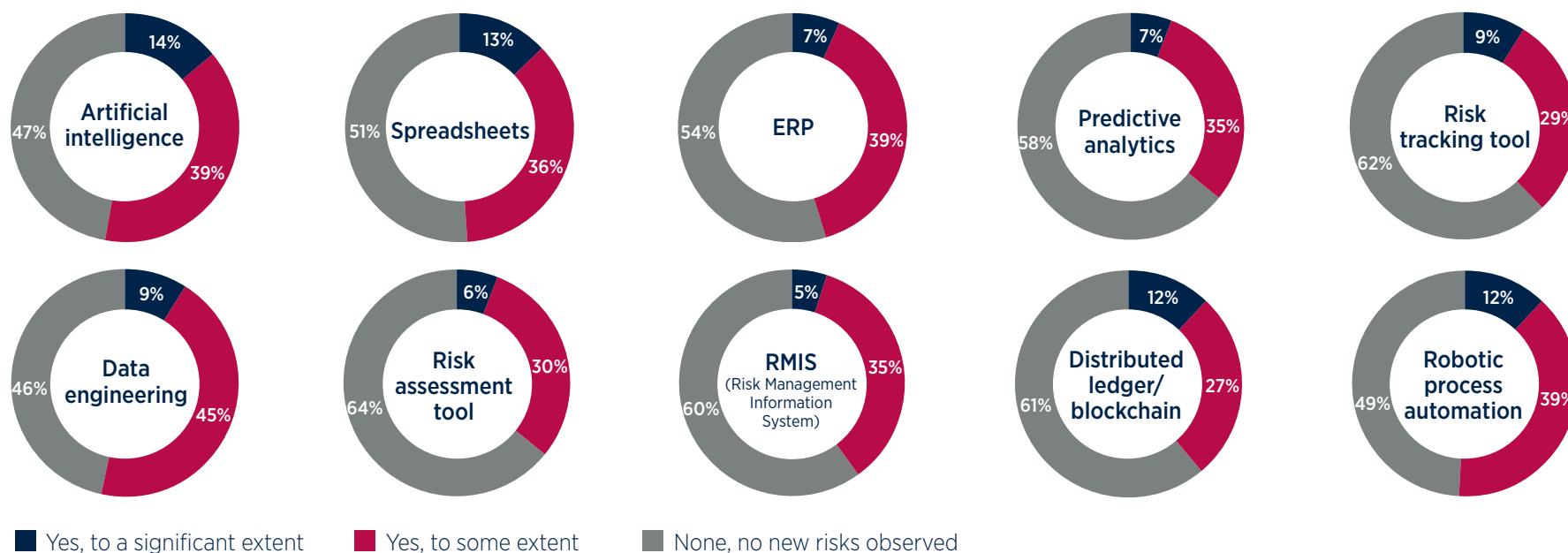
Over half of survey respondents report that artificial intelligence is impacting risk exposure at their organizations, although only 14 percent indicate the effect is significant. Data engineering and spreadsheets are also viewed as technologies that will expose companies to new risks.

Over 60 percent of respondents do not *anticipate* the use of the following technologies will result in exposure to any new risks:

- Risk assessment tool **64 percent**
- Risk tracking tool **62 percent**
- Distributed ledger/blockchain **61 percent**
- RMIS **60 percent**

One of the new technologies being evaluated—distributed ledger/blockchain—has the lowest perceived risk in terms of exposure to any new risks when compared to artificial intelligence and robotic process automation. Spreadsheets are also viewed as having little impact on risk exposure. This data could suggest that respondents may not yet have fully considered all the potential risks associated with these disruptive technologies, or have not yet had much chance to fully implement those technologies. For example, robotics can increase efficiency but may also automate errors if there are mistakes in coding. There are also huge challenges in securing individuals with the right skill-sets to apply technologies such as artificial intelligence. Taken overall, the new technologies may reduce or address some of the risks that could be present due to heavy reliance on spreadsheets, but could also introduce risks, such as cyber risk.

Extent of the Impact of Technology on Risk Exposure (Percentage Distribution of Respondents)





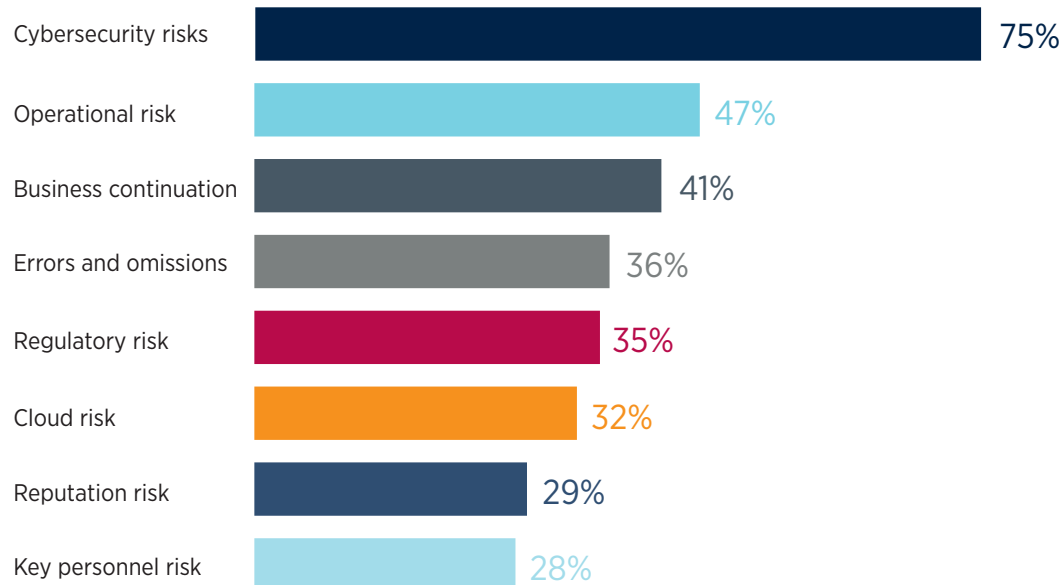
KEY FINDING 6

Cybersecurity Risks are Increasingly Being Managed as a Result of Increasing Use of Technology

Organizations' Treasury and Finance functions are tasked with managing risks resulting from recent technology adoptions. Three-fourths of corporate practitioners report that cybersecurity risks have surfaced at their companies as a result of the increased use of new technologies. Slightly less than half cites operational risk as a concern (47 percent), followed by business continuation (41 percent).

The adoption of new technologies has resulted in treasury and finance practitioners managing cyber risks almost twice as much as business continuation and errors and omissions risks. Prudent expectations are clearly evident, as treasury professionals believe that cyber risk or the connectivity to the external environment will be of concern as organizations connect extensively to artificial intelligence, robotic process automation and data engineering technologies. Over a third of survey respondents report they are managing risks from errors and omissions, suggesting that there are some flaws in new technologies being implemented.

New or Increased Risks Being Managed as a Result of Increased Use of Technology (Percent of Organizations)



“Corporate practitioners report that cybersecurity risks have surfaced at their companies as a result of increased use of technology”

Key Finding 6 continued

Organizations Have Made Some Revisions in Risk Mitigation Approaches in Response to New Technologies

While treasury and finance professionals are managing risks associated with technology enhancements at their companies, 28 percent report that their organizations have not taken steps to revise their approach to risk mitigation in response to increased risks. Fifteen percent of respondents confirm their companies have revised their risk mitigation approaches significantly to combat these new or increased risks. The remaining 57 percent of companies have made some revisions to their risk mitigation strategies.

Extent Risk Mitigation Approaches Have Been Revised in Response to Increased Risks (Percentage Distribution of Organizations)

	ALL	ANNUAL REVENUE LESS THAN \$1 BILLION	ANNUAL REVENUE AT LEAST \$1 BILLION	PUBLICLY OWNED	PRIVATELY HELD
Revised risk mitigation approaches significantly	15%	18%	11%	14%	16%
Revised risk mitigation approaches to some extent	57	48	69	65	53
Revised risk mitigation approaches	28	34	20	20	31

Updating and/or Revising Control Process Chief Strategy to Enhance Risk Mitigation

Those organizations that have enhanced their risk mitigation approaches have used various methods. Nearly three-fourths (72 percent) have updated and revised control processes while 67 percent have revised internal policies. Other enhancements include:

- Training and awareness on new processes **61 percent**
- Updated/revised IT systems and security **59 percent**
- Revised processes to adapt to new technologies **53 percent**



“Twenty-eight percent of organizations have not taken steps to revise their approach to risk mitigation in response to increased risks”

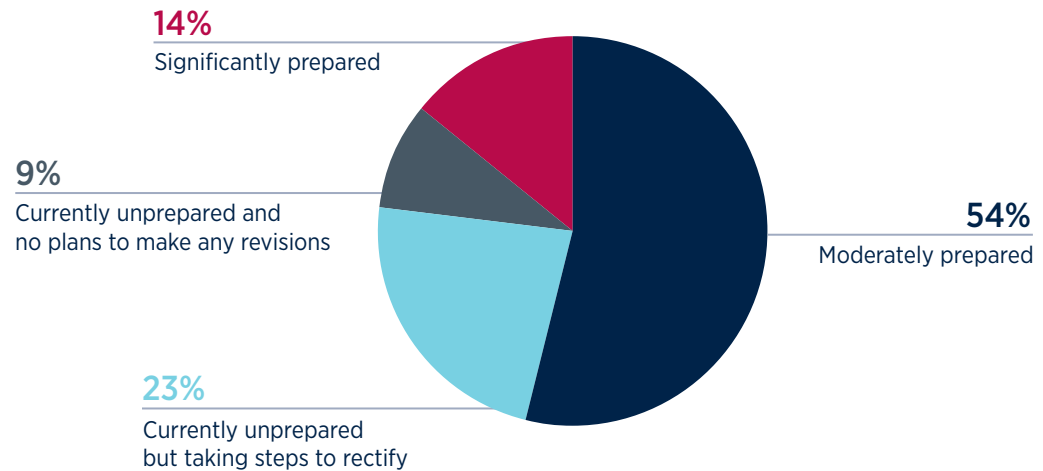


KEY FINDING 7

A Majority of Organizations is Prepared to Manage Risks as a Result of Increased Use of Technology, although a Few Report Being Significantly Prepared

How prepared are organizations to manage the risks that either have arisen or will arise as a result of increasing use of technology? Although treasury and finance professionals are cognizant that increased use of technology will also increase risk exposure, not all organizations are actively addressing the urgency and criticality of being prepared to manage these risks. Nearly a third of respondents admit their organizations are unprepared, although 23 percent are taking steps to rectify that, while nine percent are both unprepared and have no plans to do so. Fourteen percent are significantly prepared and 54 percent are moderately prepared. More than two-thirds are currently prepared to manage the risks of evaluating three emerging technologies: artificial intelligence, blockchain and robotics—a result that parallels the 68 percent of organizations that made revisions to their risk mitigation approach.

Treasury and Finance Functions' Preparedness to Manage Risks Resulting from Increasing Use of Technology (Percentage Distribution of Organizations)





Conclusion

Research findings reveal that strategic risks are of significant concern to finance leaders at organizations and they will continue to be a top concern in the next three years. Regardless of how aware finance professionals are of strategic risks, those risks are difficult to plan for and challenging to control.

Strategic goals and decisions implemented by organizations may not be able to withstand a disruption in the industry or market in which companies operate. Cybersecurity risks are also considered significant; these risks are not only important today—they will continue to be top of mind three years from now. Technology disruptions are also being noted by practitioners, as over one-third of them indicate such disruptions will be a significant risk over the next three years.

Spreadsheets continue to be used at a vast majority of organizations to manage risk, even though only slightly more than one-fourth of respondents believe that doing so increases the Treasury and Finance function’s efficiency in analyzing or managing risks. Among other technologies that are increasing the efficiency of analyzing/managing risk is predictive analytics, which is being used at 61 percent of organizations. Organizations are actively evaluating distributed ledger/blockchain, artificial intelligence and robotic process automation to implement within their Treasury and Finance functions to manage risk.

Treasury and finance professionals anticipate that artificial intelligence will increase risk exposure to some extent, as will spreadsheets. Most companies have revised control processes to manage cybersecurity risk as a result of increased use of technology.

Treasury and finance professionals are well aware that risks will occur with an increased use of technologies. One-third of practitioners believe their companies are unprepared and, only 14 percent of organizations are significantly prepared to manage these risks. To alleviate the impact of risks resulting from technology disruptions, a greater share of treasury and finance professionals needs to be confident their organizations are significantly prepared to manage these risks.



03

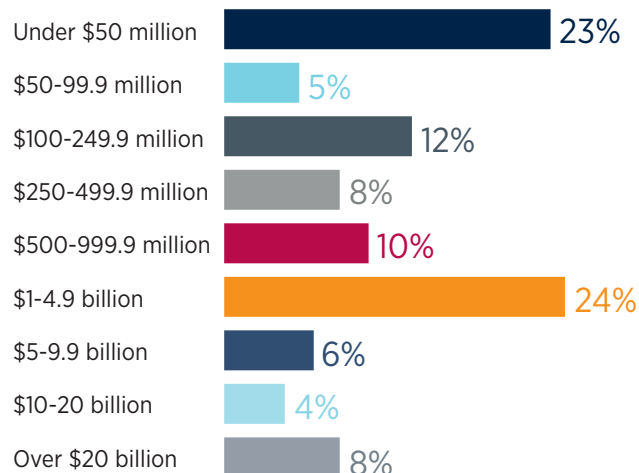
ABOUT SURVEY PARTICIPANTS



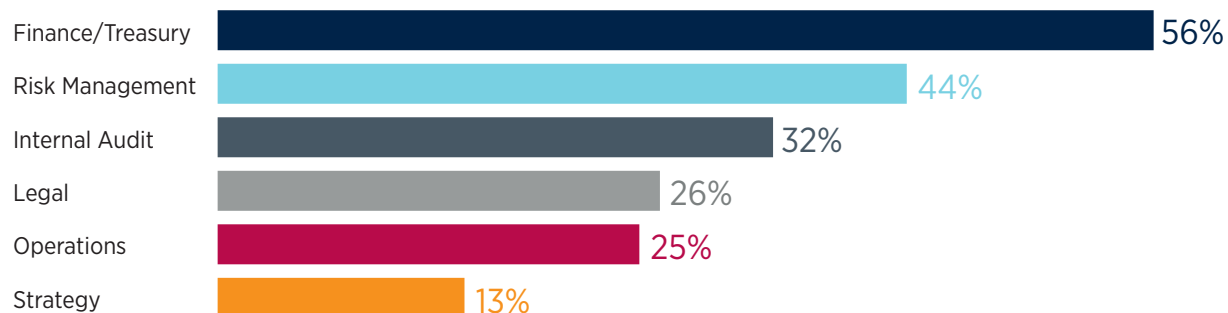
About the Survey Participants

In September 2017, the Research Department of the Association of Financial Professionals® (AFP) surveyed its senior-level corporate practitioner membership. This year's survey results provide insights on the greatest risks impacting organizations currently as well as in the next three years. Results also demonstrate the current risk appetite at organizations, as well as the extent to which emerging technologies are being used to manage risk within the Treasury and Finance functions and whether those technologies are effective. The survey was sent to AFP members and prospects who held job titles of CFO, Treasurer, Controller, Vice President of Finance and Assistant Treasurer. Responses from 614 professionals form the basis of this report. The respondent profile closely resembles that of AFP's membership and is presented below. AFP thanks Marsh & McLennan Companies Global Risk Center for being a valued partner and for its continued support of the AFP Risk Survey series, including sharing subject matter expertise for the design of the questionnaire and for the final report. The Research Department of the Association for Financial Professionals® is solely responsible for the content of this report.

Annual Revenue (U.S. dollar) (Percentage Distribution of Organizations)



Department Managing Enterprise Risk Management (ERM) (Percent of Organizations)



About the Survey Participants continued

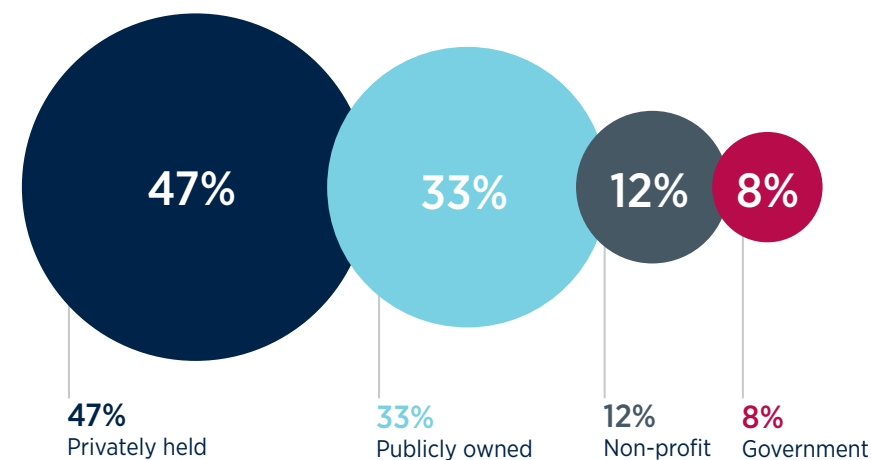
Industry

(Percentage Distribution of Organizations)

Agriculture	2%
Air Transport	1
Automotive	2
Chemicals	2
Communications	1
Consumer Products (Manufacturing, Sales, Distribution, etc.)	9
Energy (Utilities, Oil, etc.)	7
Financial Services (Banking, Investment, Brokerage, Insurance, etc.)	23
Government/Not-for-Profit	12
Healthcare Provider	4
Media/Professional Services	5
Mining and Metals	1
Pharmaceuticals/Biotechnology (Development, Manufacturing, Sales, Distribution, etc.)	3
Retail	6
Surface Transport (Maritime, Motor Transport, Rail)	1
Technology (Development, Manufacturing, Sales, Distribution, etc.)	9
All Other Manufacturing (excluding Consumer Products, Pharmaceuticals, Technology)	11

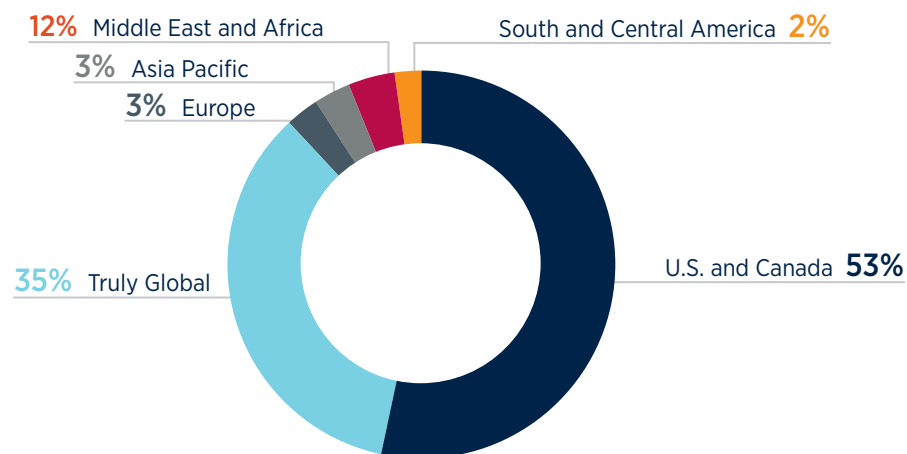
Ownership Type

(Percentage Distribution of Organizations)



Geography

(Percentage Distribution of Organizations)





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AFP Research provides financial professionals with proprietary and timely research that drives business performance. AFP Research draws on the knowledge of the Association's members and its subject matter experts in areas that include bank relationship management, risk management, payments, and financial accounting and reporting. Studies report on a variety of topics, including AFP's annual compensation survey, are available online at www.AFPonline.org/research.

About AFP®

The Association for Financial Professionals (AFP) is the professional society committed to advancing the success of its members and their organizations. AFP established and administers the Certified Treasury Professional and Certified Corporate FP&A Professional credentials, which set standards of excellence in finance. Each year, AFP hosts the largest networking conference worldwide for over 6,500 corporate finance professionals.

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