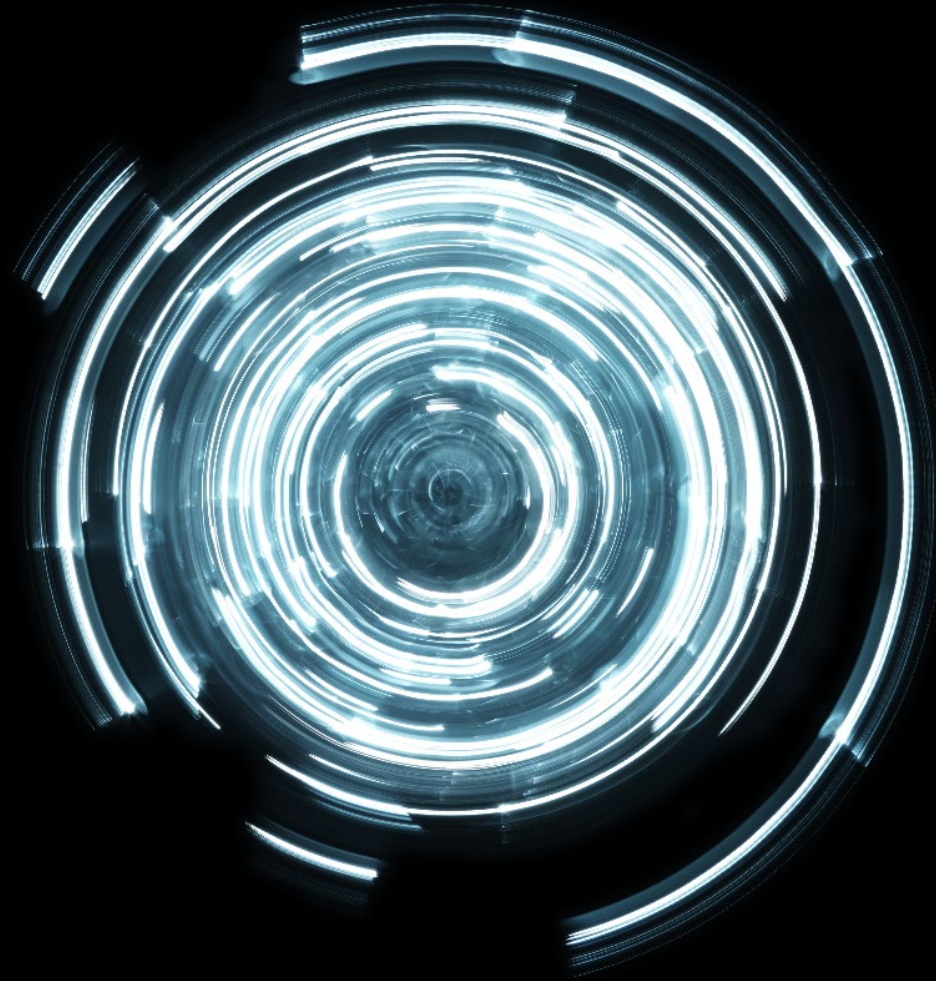


Deloitte.



Deloitte Global
Treasury Survey

November 2022

Introductory message

Deloitte is pleased to release its biennial 2022 Global Corporate Treasury Survey.

This report reveals that organizations are quickly taking action to address liquidity management, financial risk, business continuity, and operating model priorities. We invite you to read on to explore the key findings on top mandates, technology, risk management, and more.

While conducting the survey, we observed some companies were still dealing with impacts from the COVID-19 pandemic, whereas other organizations considered the pandemic in the rearview mirror and were now focused on new priorities and challenges. In preparing this year's survey, our team considered the following:

- What challenges and mandates are treasurers facing?
- What learnings did organizations have from the pandemic and how are treasury organizations evolving as a result (business continuity, focus, talent, and size)?
- What are the challenges around risk and how are organizations managing risk related to FX, business continuity, cyber, and fraud?
- How are technologies adopted and used by the treasury teams?
- To what extent are treasurers utilizing technologies that complement treasury management systems?
- What regulations and trends are top of mind for treasurers?

Survey demographics

A total of 245 interviews were conducted across Deloitte's global network via a questionnaire:

- Respondents span all industries with most participants from the Consumer & Industrial Products industry.
- 56% of companies participating have revenues less than 10bn USD, whereas 24% have revenues between 10-50bn USD and the remaining 20% have revenues in excess of 50bn USD.

We hope that you will enjoy the survey results and would encourage that you reach out to your local Deloitte point of contact (listed on page 21 of this document) if you would like to have a more in-depth conversation about the survey results or engage in a broader conversations around any of the topics discussed.

Working in collaboration with our international member firms, Deloitte Treasury Advisory practitioners provide global coverage, offering experience and domain knowledge across areas of treasury strategy, transformation and technology. If this survey resonates with any issues your company is facing, please contact us.



Niklas Bergentoft
Global Treasury Leader
Deloitte US

A handwritten signature in black ink, appearing to read 'Niklas'.



François-Dominique Doll
Asia Pacific Risk Advisory
Treasury Lead
Deloitte Singapore

A handwritten signature in black ink, appearing to read 'François-Dominique'.

Executive summary

Almost unanimously, most of our respondents have selected liquidity risk management and being a steward for financial risk management as critical mandates. Working capital optimization and enhancing governance and control over global treasury operations have gained more focus by treasury groups since the last time we conducted the survey in 2019.

Within the next 12 months, most surveyed organizations are planning to take actions to enhance liquidity management, improve cash forecasting activities, improve capital structure, address market risk, and increase operational efficiency to better deliver on mandates and address common challenges that include visibility into global operations, limited digital/treasury systems capabilities, liquidity, and FX volatility.

Learning from the experience of navigating the pandemic over the past few years, the survey further revealed that many organizations are looking to take control of their own destiny and increase their readiness for a “next event” by addressing any gaps related to business continuity planning, strengthen FX risk management, and fraud risk management capabilities.

The operating model was another big area of focus for our respondents. Many organizations shared that they are looking to right-size their organizations along with evolving their capabilities by adding new skills they believe are required in the future treasury organization. In terms of right-sizing, there was a general trend where larger organizations were looking to streamline its function whereas the smaller to midsize organizations were looking to increase the capacity of their teams. Consistent across all company sizes was an increased focus of combining technical treasury experience with data/modelling, digital as well as soft skills. A few of our respondents expressed that they believe that the treasurer of tomorrow will not only need to possess treasury domain expertise, but leadership, risk management, and technology skills to better navigate strategic treasury priorities of tomorrow.

When asking about trends and regulations, more than half of our respondents shared that IBOR transition; Environmental, Social, and Governance (ESG); FX regulations; and the emerging trends of API (application programming interface) are top of mind.

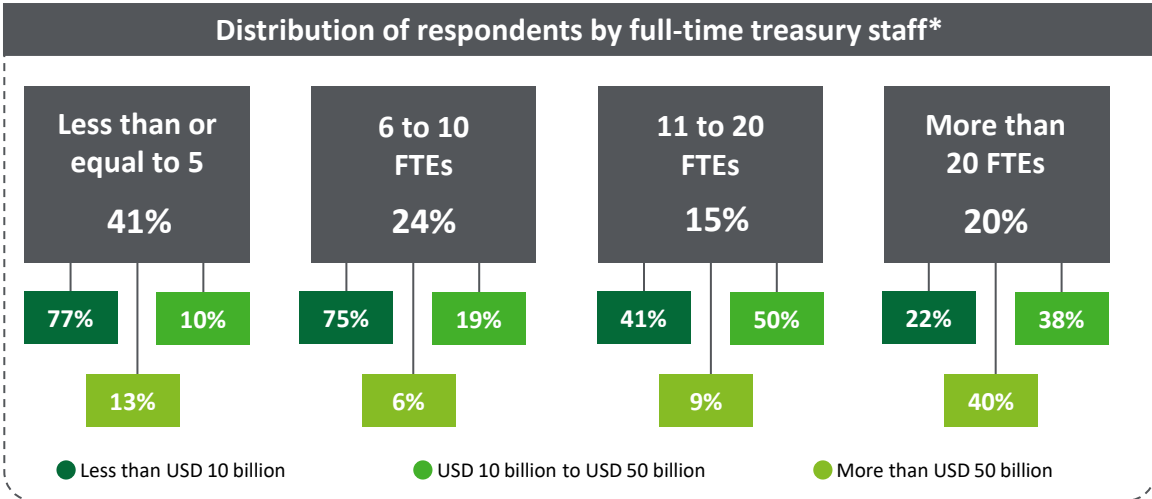
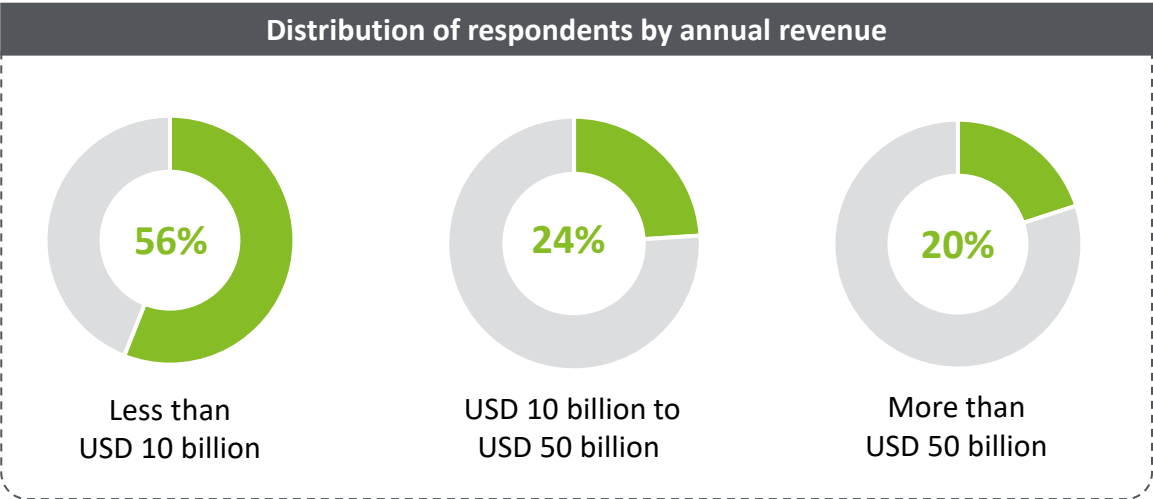
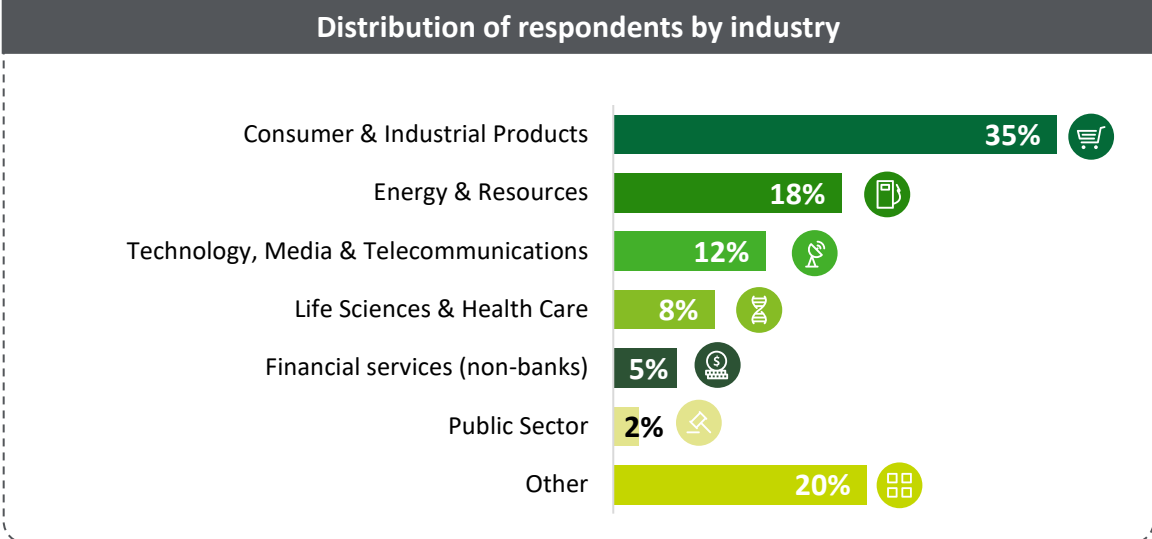
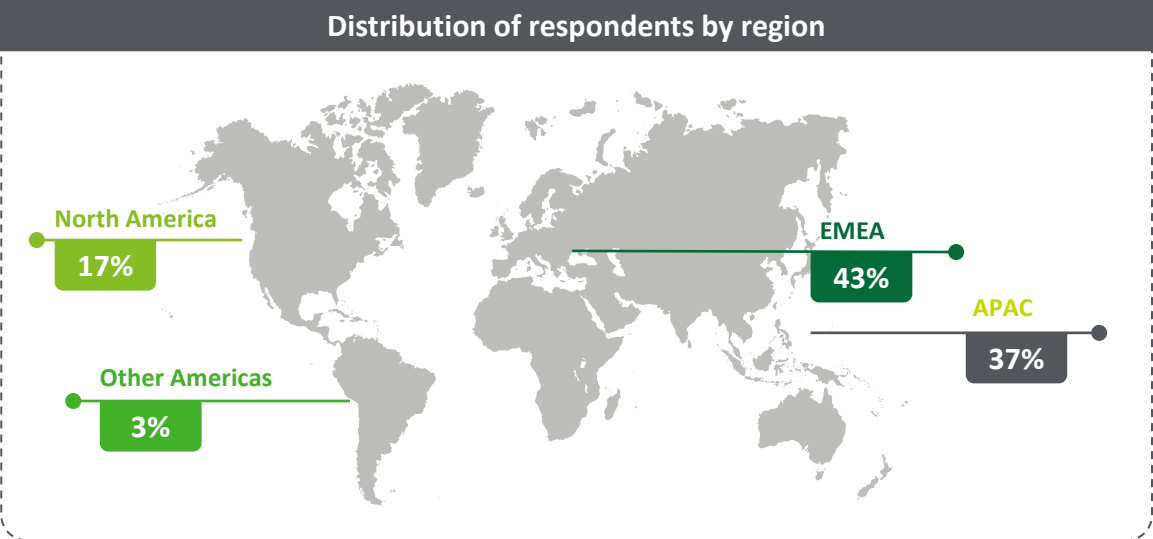
When it comes to enabling solutions for the treasury priorities discussed above, treasury is front and center. Respondents share how they are using technologies today. Most of our respondents use treasury management technologies. The adoption of treasury management technologies in the cloud has increased since we conducted our survey last in 2019. Respondents also share how they have increased the adoption of APIs, automation, and visualization technologies to complement treasury management systems (compared to our last survey in 2019).

The conclusion we draw from the survey is that organizations are quickly taking actions to address liquidity management, financial risk, business continuity and operating model priorities, many of which are learnings from what organizations experienced during the pandemic. Getting ahead of regulatory drivers, especially IBOR and ESG, are top of mind, and many are looking to technology (treasury management systems (TMS), APIs, automation and visualization technologies) to help enable these key priorities, many of which organizations are looking to address over the next year.



Survey demographics

245 respondents across various industries participated in the global treasury survey in 2022. Nearly two-thirds of the respondents are treasury team leaders in their organization.



*Note: The results excluded outliers who have mentioned total company strength instead of number of full-time treasury employees (this has been validated through secondary space/c. website)
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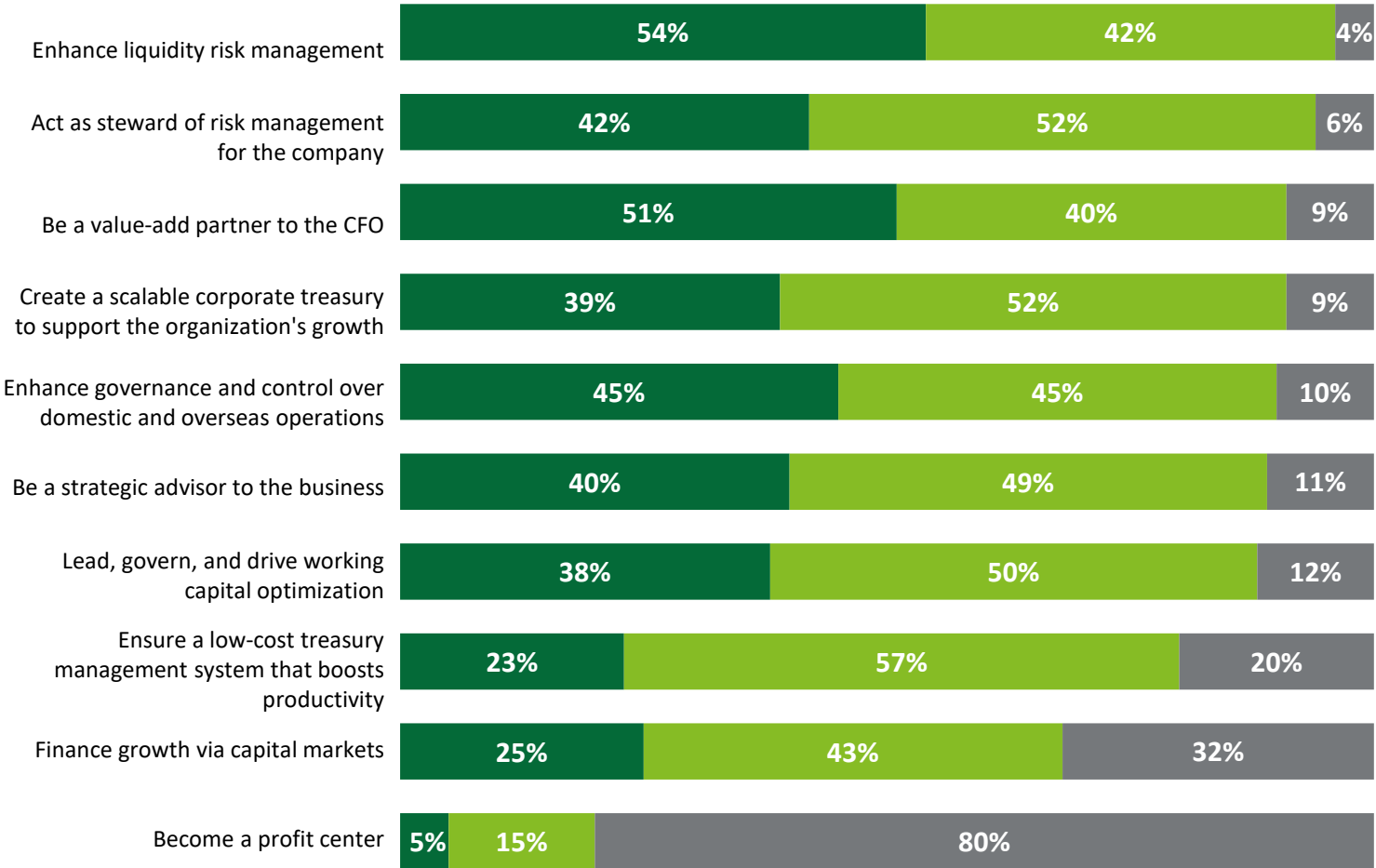
1. The treasury function



Top mandates defined for the treasury function

Echoing the trends in Deloitte’s past treasury surveys, coming out of many of the COVID-19 restrictions, the top priority set by CFOs for their treasury departments is to focus on enhancing liquidity risk management. While funding in the external markets has been widely available, there further continues to be a big focus on the treasurer taking ownership of working capital improvements as many organizations continue to have challenges with supply chain related activity.

Working from home for most of 2021 also increased the focus on enhancing control over domestic and overseas operations. From recovery to thriving, several corporations are now looking more closely at treasury centralization and digitization.



■ Critical ■ Important ■ Not important

Top treasury mandates by the CFO



With 54% upvotes, **enhancing liquidity risk management** is considered as the most critical mandate given to treasury departments by the board or the CFO

Mandates prioritized by the CFO in 2022



Mandates such as **leading, governing and driving working capital improvement and enhancing governance and control over domestic and overseas operation**, have moved up by two and five positions respectively, compared to 2019 survey results

Least important mandates



While turning treasury into a profit center gained some momentum in prior surveys, it is still considered an exception as it tends to be limited to companies in certain industries (e.g., financial services and commodities trading businesses)

Respondents considering financing growth via capital markets as ‘Not Important’ increased significantly between 2019 (7%) and 2022 (32%), showing a preference in organizations to rely on their bank facilities or the equity market

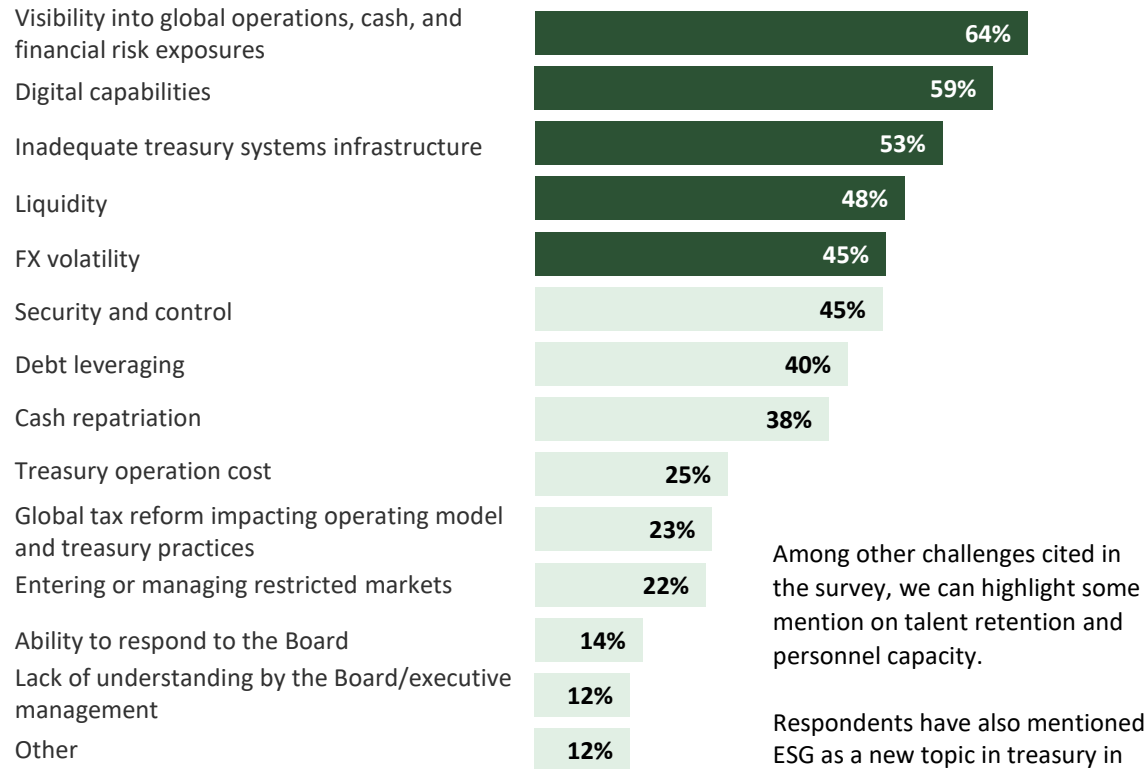
Addressing key treasury challenges

Visibility into global operations, cash, and risk exposures continues to be the most challenging and time-consuming areas for surveyed treasury executives, followed by digital capabilities, inadequate systems infrastructures, liquidity, and FX volatility. Many organizations are looking to enhance their liquidity management capabilities with a focus on visibility to cash and financial exposures, cash forecasting, working capital, and optimizing the overall capital structure. This may take place in forms of transforming the cash continuum (cash in, manage liquidity, cash out). While querying our respondents, many have put the digital transformation and technology higher on the agenda of treasury.

Companies who delayed their digital transformation are now accelerating the pace and looking to either address the legacy treasury system architecture or improve automation and access to data.



Key challenges faced by organizations (top 5 challenges)

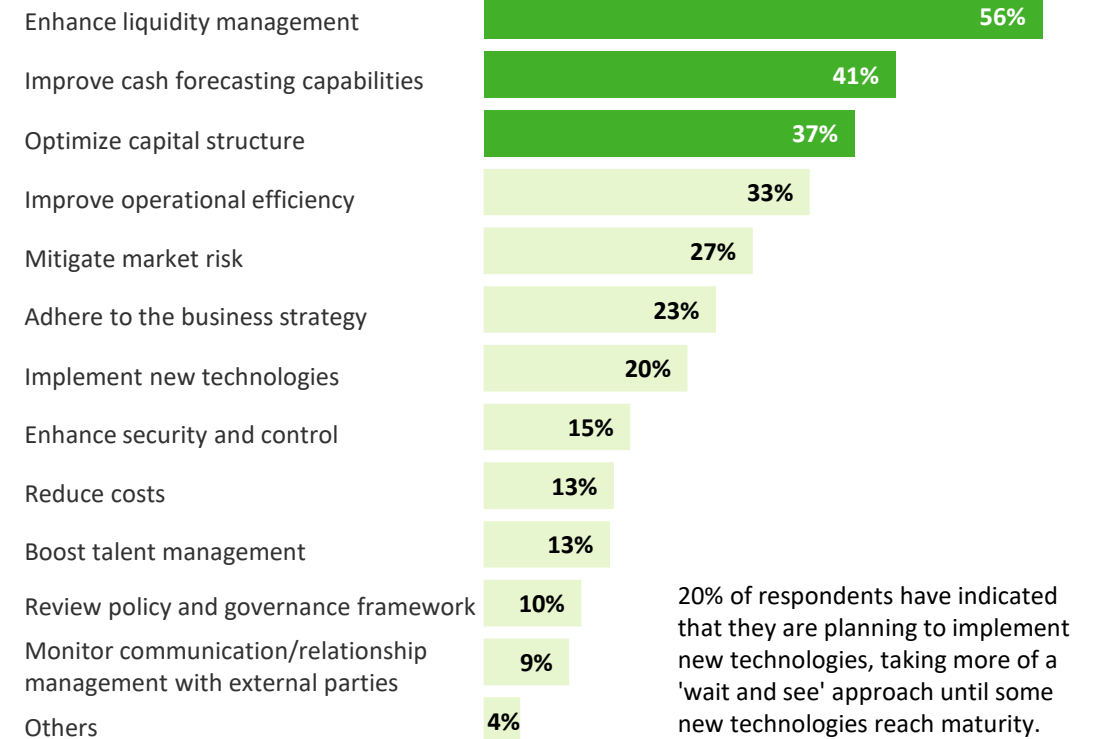


Among other challenges cited in the survey, we can highlight some mention on talent retention and personnel capacity.

Respondents have also mentioned ESG as a new topic in treasury in some of their upcoming projects.



Key priorities for next 12 months (top 3 priorities)



20% of respondents have indicated that they are planning to implement new technologies, taking more of a 'wait and see' approach until some new technologies reach maturity.

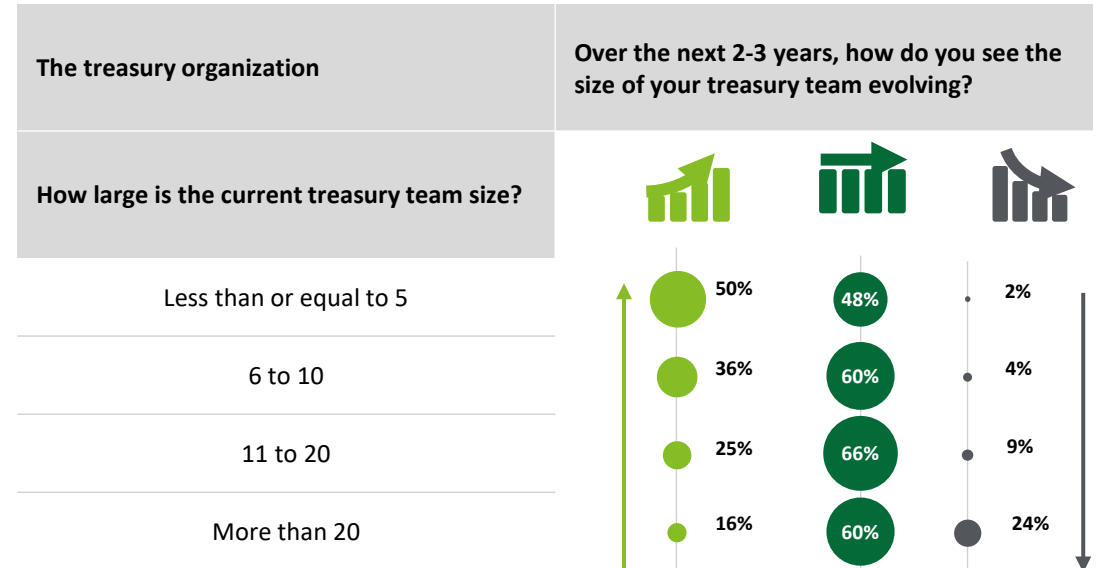
Building a resilient treasury team

People are the key enablers in the treasury function and critical skill sets in treasury have evolved to include more soft and technology skills than traditional business and finance skills. The pandemic prompted treasury teams to react quickly by enhancing liquidity-related reporting, and like other functions, treasury departments also adopted a “work from home” approach, where the reliance on digital capabilities, controls and business continuity became critical success factors. Most treasury departments demonstrated a high level of resilience, adapting to new ways of working and increased levels of digitization, at the same time as the workload for treasury increased due to heightened focus on liquidity and scenario planning. Most treasury departments have found ways to manage not only the function, but also internal and external stakeholders well.

The treasury department is evolving

Further, treasury departments were not immune to the impacts of the very active job markets, some experiencing attrition of 25% of the treasury teams during last year. Many treasurers are now rethinking their team structure, size, and skillsets needed going forward as they rebuild their teams. Smaller organizations are, in general, considering to increase the size of their teams, whereas larger organizations are looking to streamline their teams. Common considerations also include how captive and internal shared services can play a role in business continuity.

What skills will be more important for the treasurer of the future?



The experience and skillsets required in treasury of tomorrow

Respondents to the survey say that business and finance skills alone are not enough to lead the treasury functions going forward. It will require a greater mix of core treasury expertise, data/modeling, and digital as well as soft skills.

The treasurer of tomorrow will need to possess treasury domain expertise, in addition to leadership, risk management, and technology skills to better navigate strategic treasury priorities of tomorrow.

2. Treasury and risk management



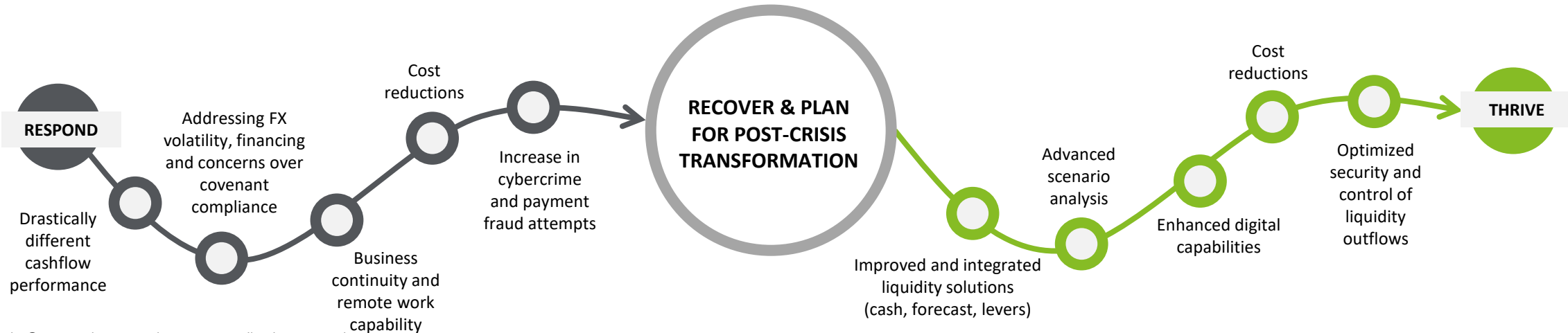
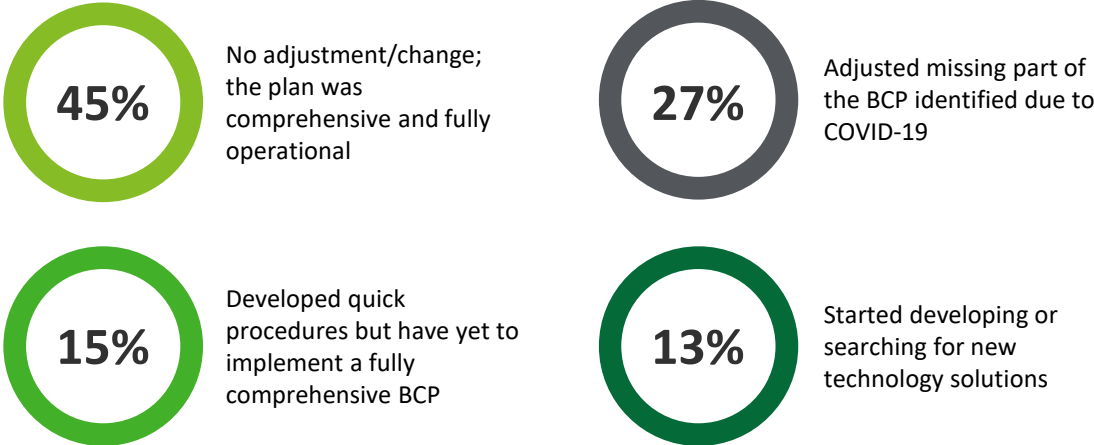
The response to COVID-19 from recover to thrive

During the pandemic, treasury departments went through a cycle of active response with increased challenges on day-to-day operations where liquidity was at the center of priorities.

Organizations that had robust analytical capabilities including liquidity forecasting as part of their business continuity plans (BCP) were able to activate those protocols, but none of the respondents had plans to cover extreme scenarios like the pandemic.

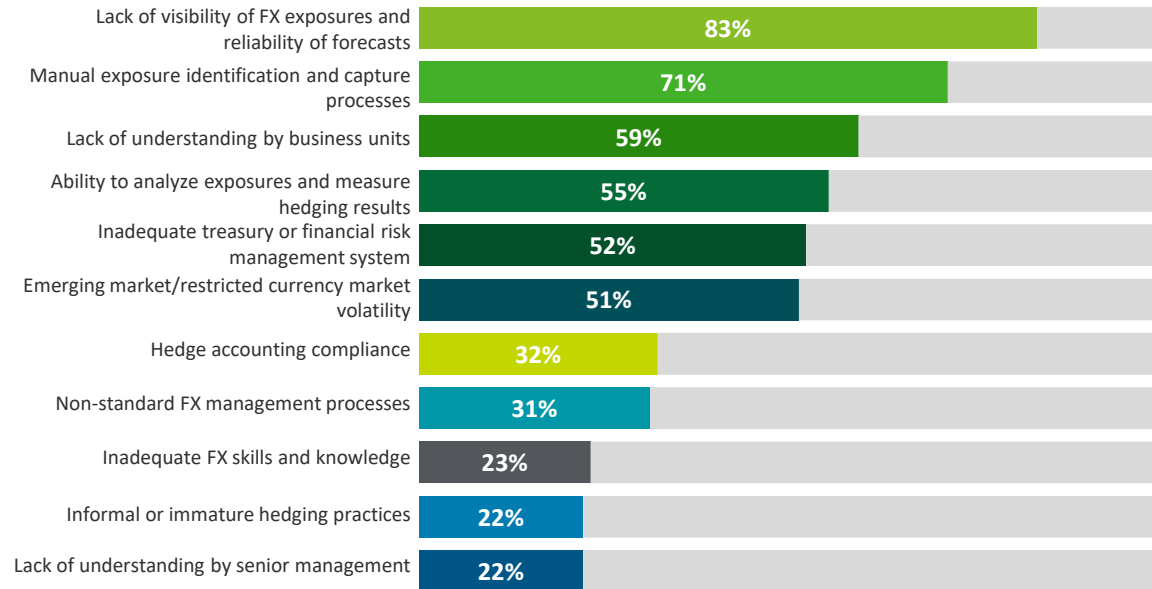
While in recovery mode from the pandemic, some respondents accelerated initiatives to address the challenges which they were particularly exposed to during COVID-19. The survey reveals that many organizations are now entering into transformation initiatives to enhance digital capabilities, improve liquidity and financial risk forecasts, and transform the overall liquidity management framework, governance, and capabilities of their organizations, which includes business continuity plans for possible future scenarios.

How did you adjust your treasury business continuity plan (BCP) after the initial response to COVID-19?



Addressing FX risks and volatility

Key challenges* faced while managing FX risks (rank up to 5 challenges)



*% indicates the selected options irrespective of ranking from 1 to 5; 1 being highest

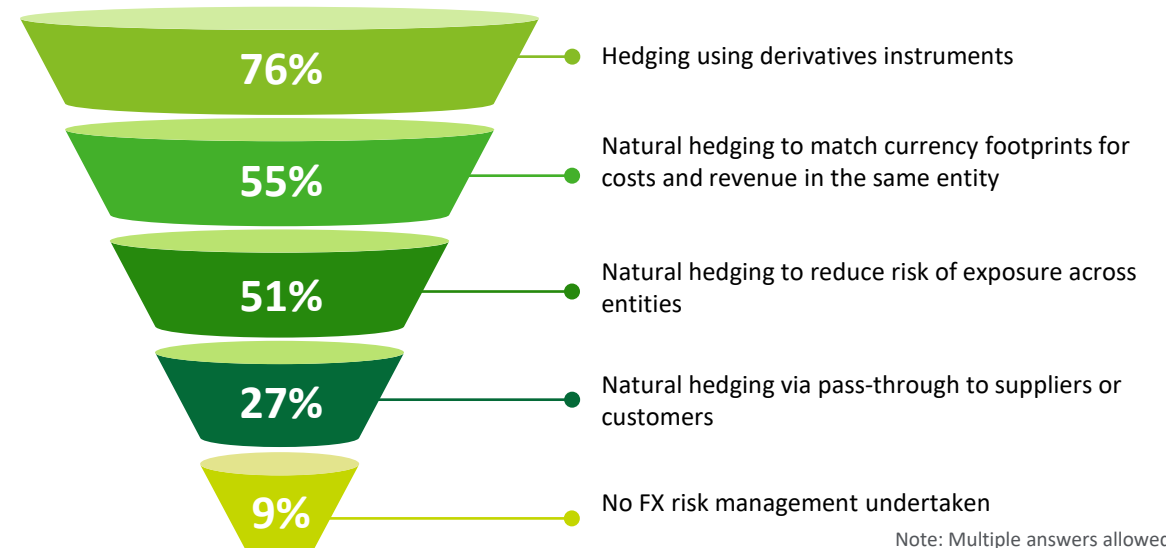
The preferred approach to handling FX risk is still through hedging using derivatives instruments, which top the answers for **76%** of cumulative answers.

Hedging notional amounts are normally reduced by the use of natural hedging either within the same entity or across entities within the group wherever centralization is possible.

Only **9%** of respondents have not taken any FX risk management initiative confirming that most treasurers have a proactive approach in managing currency exposures.

In the last year, inflationary pressures have prompted central banks to revise their monetary policies, adding volatility on the global FX markets. While this could prompt corporates to re-assess the FX risk management framework, challenges lie mainly in timely identification of exposures at the source, especially for cash flow hedging linked to forecasts. While exposures are properly hedged according to policy, there is a perception across a large portion of the respondents expressed concerns that FX exposures may be inaccurate and not properly captured, making it the two highest ranked challenges (**83%** and **71%**) related to FX risk.

What approaches are respondents taking to manage FX risk ?

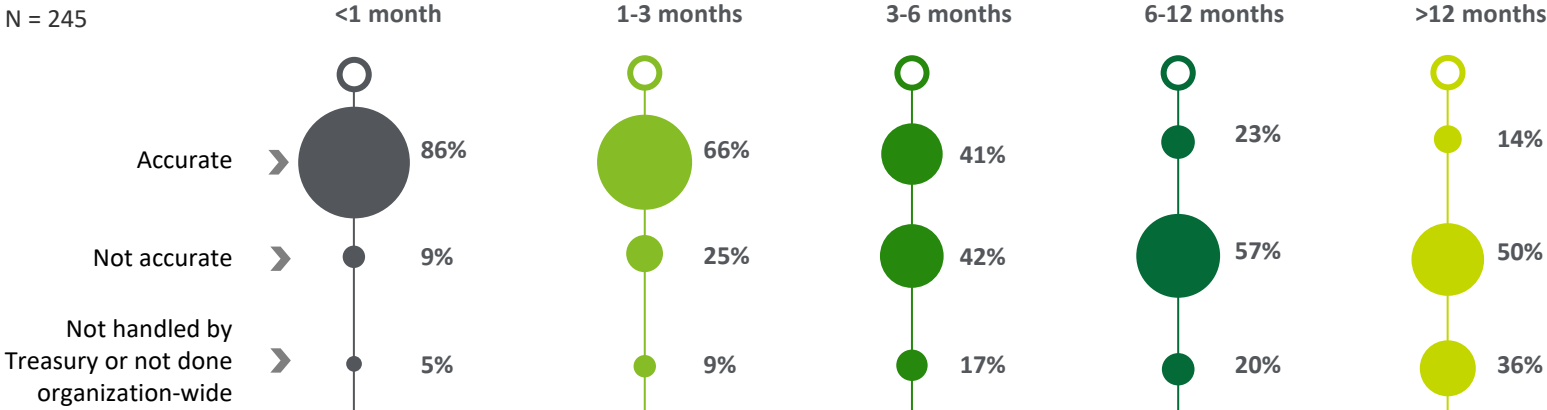


Note: Multiple answers allowed

Cash forecasting

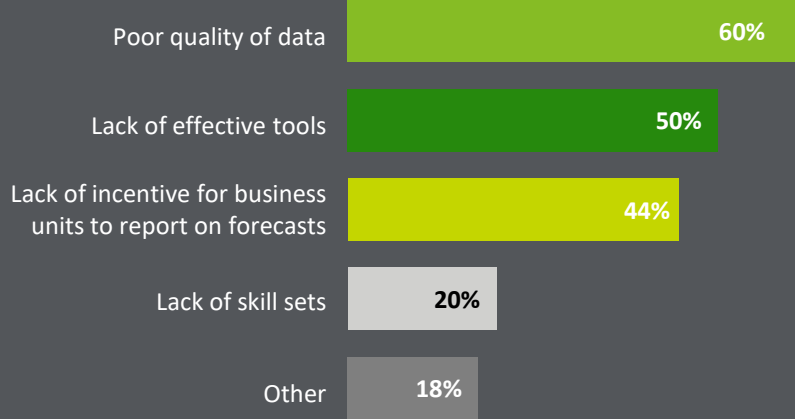
Cash forecasting is considered one of the top 3 priorities that respondents are looking to address in the next 12 months. When treasury executives are asked about the level of accuracy of their forecasts, they consider cash forecasting to be more accurate in short or near-term, compared to long term – 86% of the executives rated cash forecasting as accurate for a timeline of <1 month. However, for a timeline beyond 6 months, more than 50% rated cash forecasting as inaccurate. Only for a small proportion cash forecasting is either not handled by treasury or not done with a growing proportion for a longer horizon.

How would you rate the accuracy of your cash forecasting according to the following horizons?



What are the hurdles of improving the accuracy of cash flow forecast?

While short term forecasting is mainly based off balance sheet information and can be extracted from ERP systems, longer term forecasting relies on other sources, such as budgeting or financial planning, and requires modelling. Over the last few years, we have seen the emergence of artificial intelligence and machine learning based technologies utilized in forecasting. While there is an effort to build forecasting models using these technologies, they can enable more accurate forecasts based on data patterns and external data points (market data and consumer behavior). As the volume of data increases, the model will be further refined, thus adjusting future forecasts.



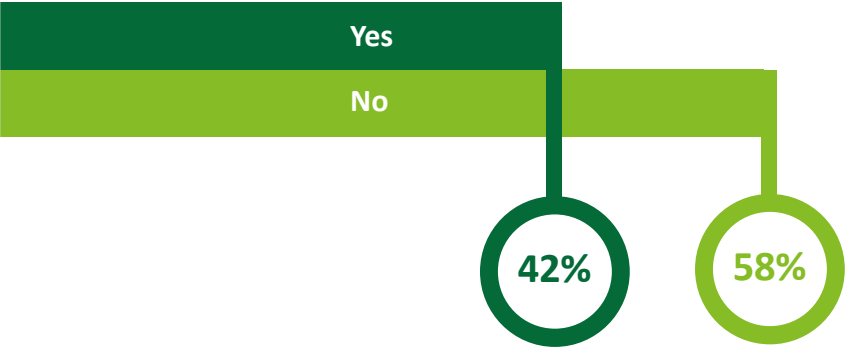
Quality of data is considered the main hurdle to improve the accuracy of cash flow forecasts (60%) , as well as the lack of effective tools (50%). While treasury management systems provide good forecast reporting, the challenges come from the source of data and the development of a forecasting model. Significant efforts are required by treasury teams to analyze the data, and it requires a group-wide collaboration to review and improve cash flow forecasts. A proper modelling approach helps corporations to adjust their forecasts based on actual versus forecasts comparison.

Note: Multiple answers allowed

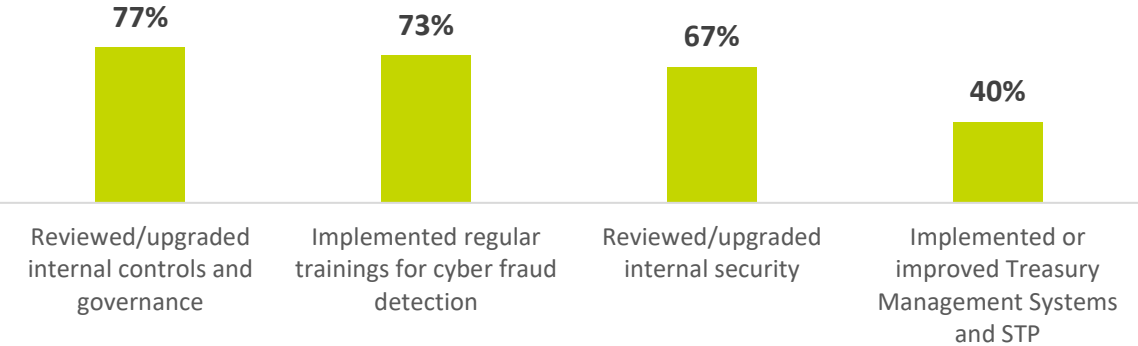
Operational risk: reacting to fraud

Cyber security is a growing concern among corporate treasurers (45% ranked security and control as part of one of the top 5 challenges) and during the pandemic, companies have been more exposed to payment fraud. While treasury systems and banking platforms tend to comply with the security requirements of most organizations, fraud usually occurs through phishing emails, ad hoc payment requests, social engineering or internal fraud. Usually, the response to fraud involves enhancements of internal controls and governance, company-wide awareness and training, and extended IT support involvement.

Has your treasury department faced cyber fraud attempts in the past?

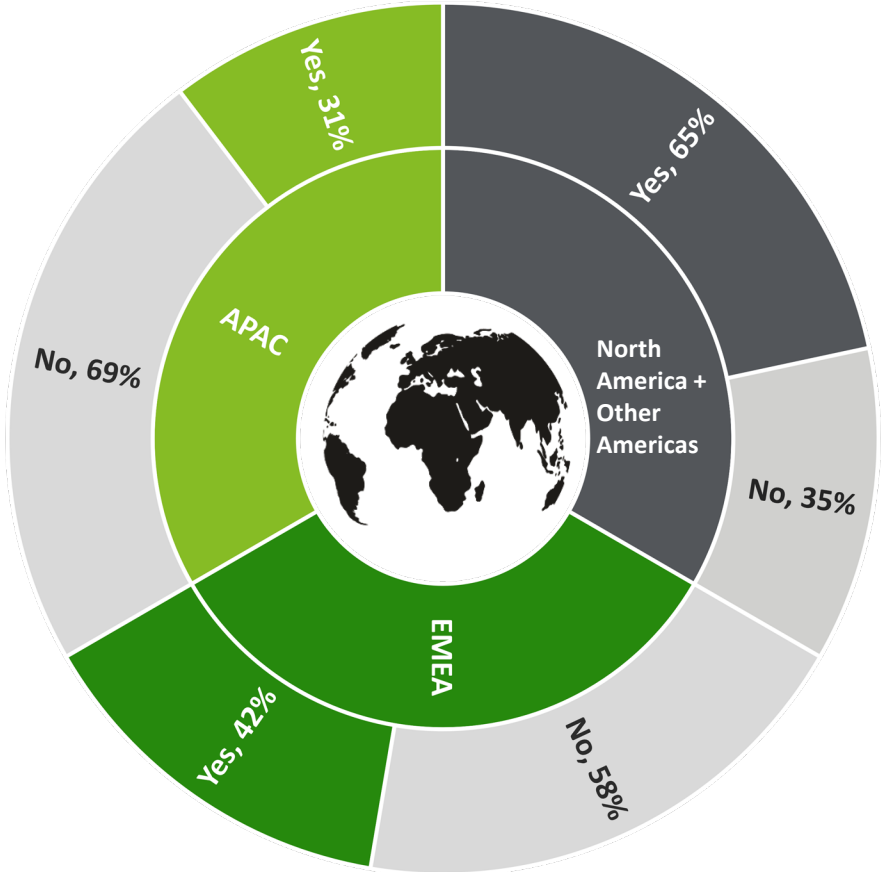


How have you responded?



Note: Multiple answers allowed

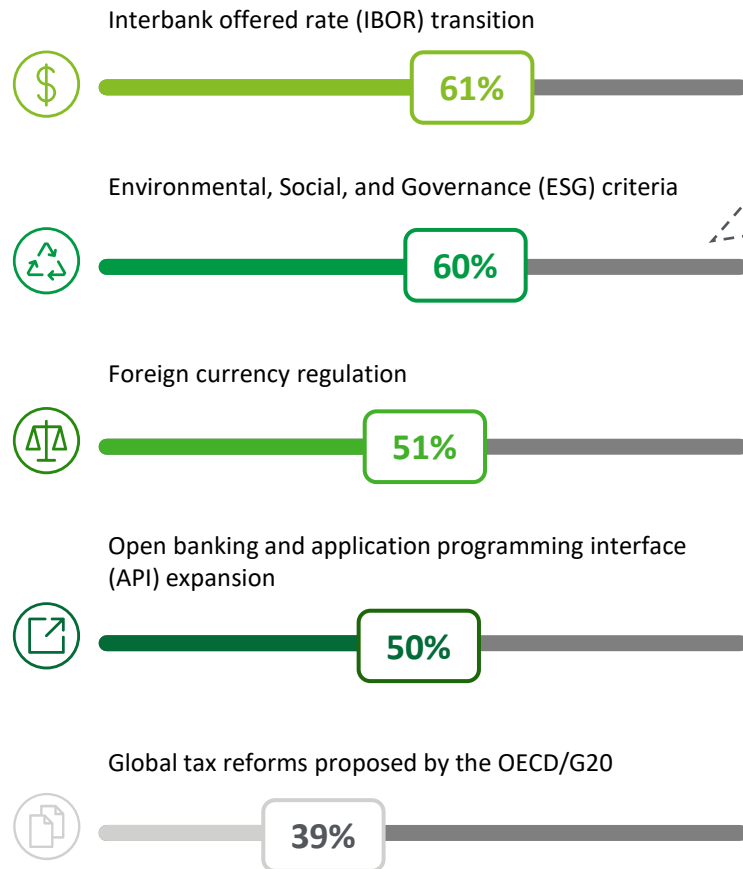
By regions: Contrary to APAC and EMEA, majority of organizations (65%) in the US and other Americas faced or reported cyber fraud attempts in their treasury departments



Regulations and trends in treasury for 2022

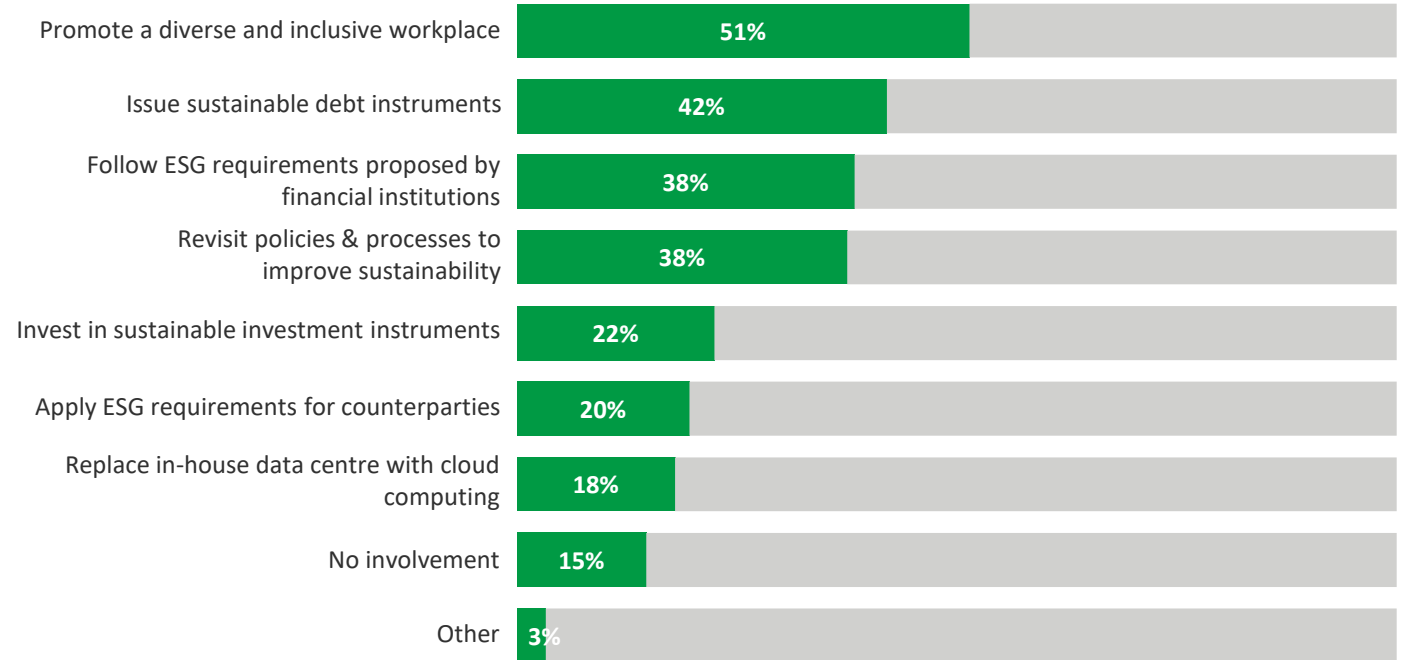
When asked about different regulations and trends, around **61%** of respondents felt that IBOR transition and ESG are the most likely areas to have a significant impact on the treasury organization and its processes. While IBOR transition to Alternate Reference Rate (ARR) is still in progress at the corporate level across geographies, it is likely to become business as usual. On the contrary, we expect ESG regulation to becoming much more prevalent in the future, driven by financial institutions and corporate policies.

What are the regulatory changes or technology innovations that will most likely affect your work in treasury over the next 12 months?



Note: Multiple answers allowed

How is treasury involved in applying your organization's Environmental, Social, and Governance (ESG) agenda?



Note: Multiple answers allowed

Depending on the industry, or the region, ESG discussions have made their way to the boards and are now increasingly interconnected with the financial market through debt instruments (Green / Blue / Orange Bonds) with new covenants, measurements, and reporting. Similarly, corporate treasurers are reviewing their investment policies to include more sustainable instruments and taking a proactive role in the "net-zero" agenda.

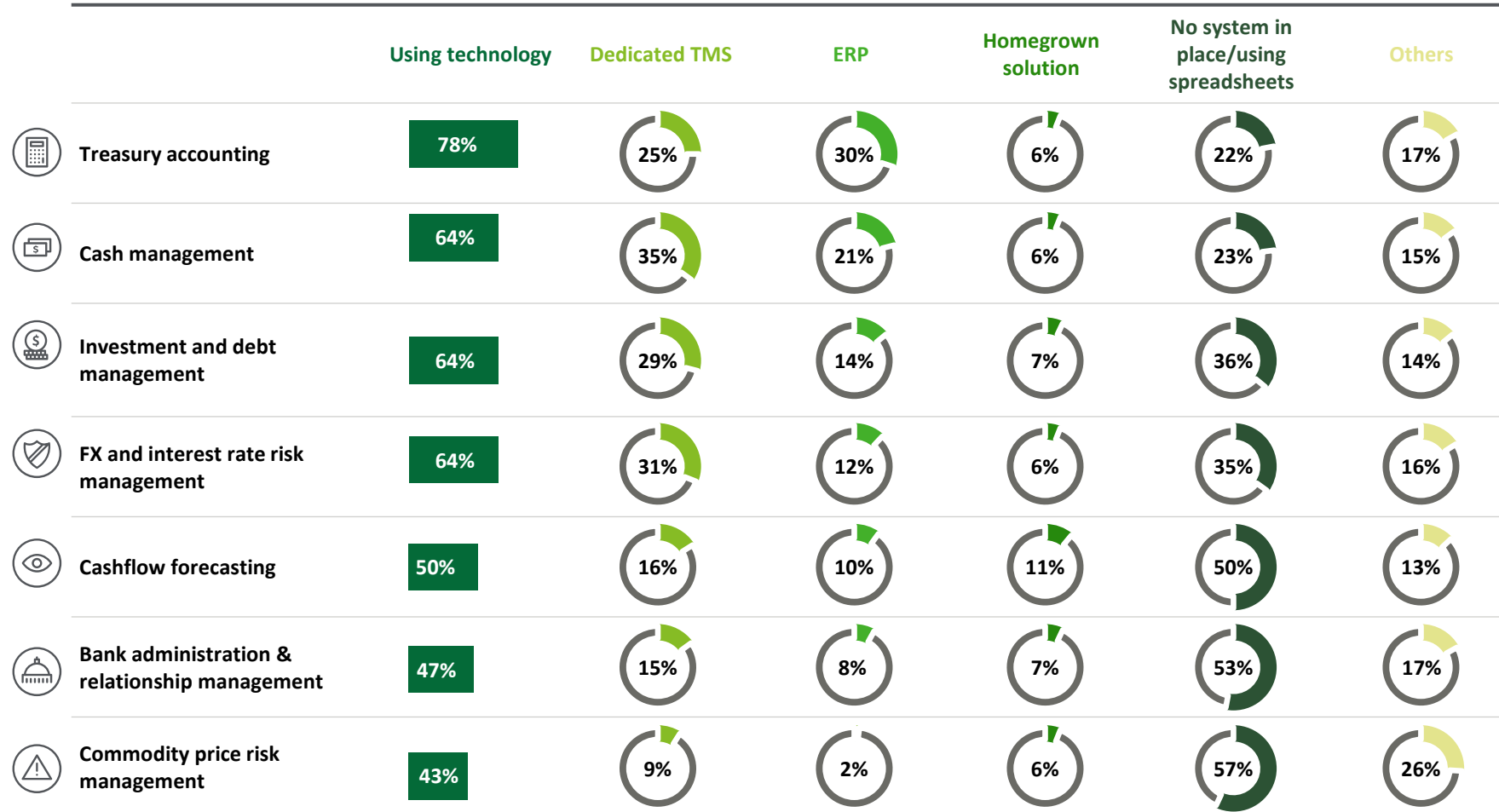
3. Treasury technology



Core treasury management systems (TMS)

The adoption of TMS continues to grow over the years and the pandemic further accelerated the digitization of treasury operations, with companies implementing or upgrading their TMS. Looking at the different treasury functions, automation of cash, FX, and interest rate risk management, and treasury accounting are prevalent, while bank administration management is still mostly manual. Finally, commodity price risk management continues to leverage other specialized technology.

What treasury technology solution(s) does your company use to support execution of various treasury responsibilities?

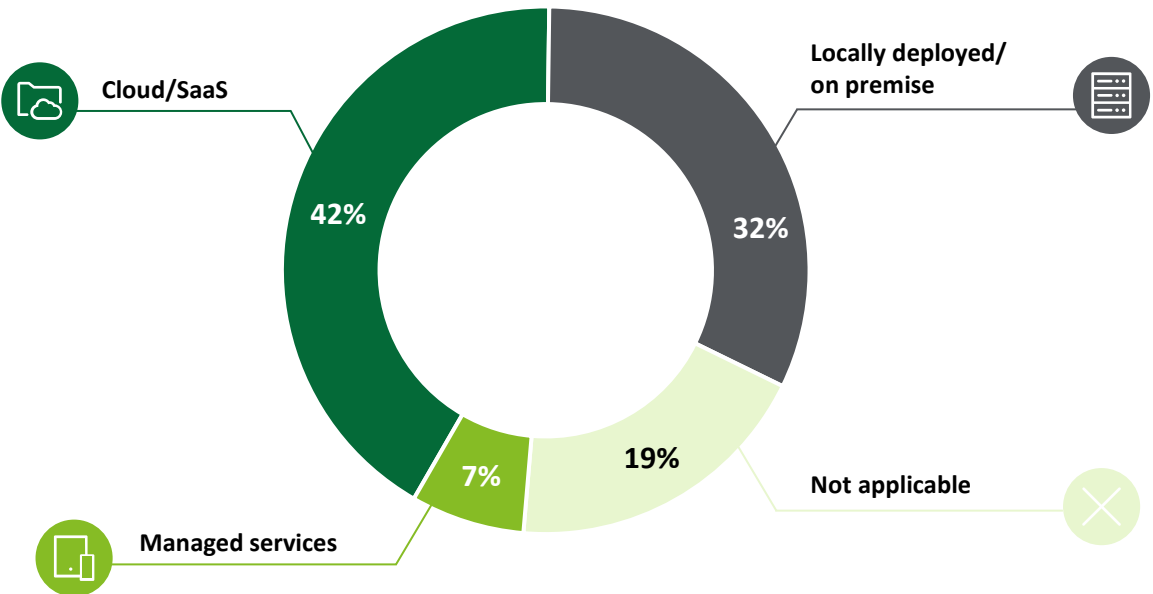


The TMS market is dominated by few global players which provide solutions that support treasury departments to enhance processes, controls, and automation. Based on our survey, SAP Treasury remains the most used ERP system among respondents, followed by Kyriba, FIS, and ION TMS solutions depending on the modules.

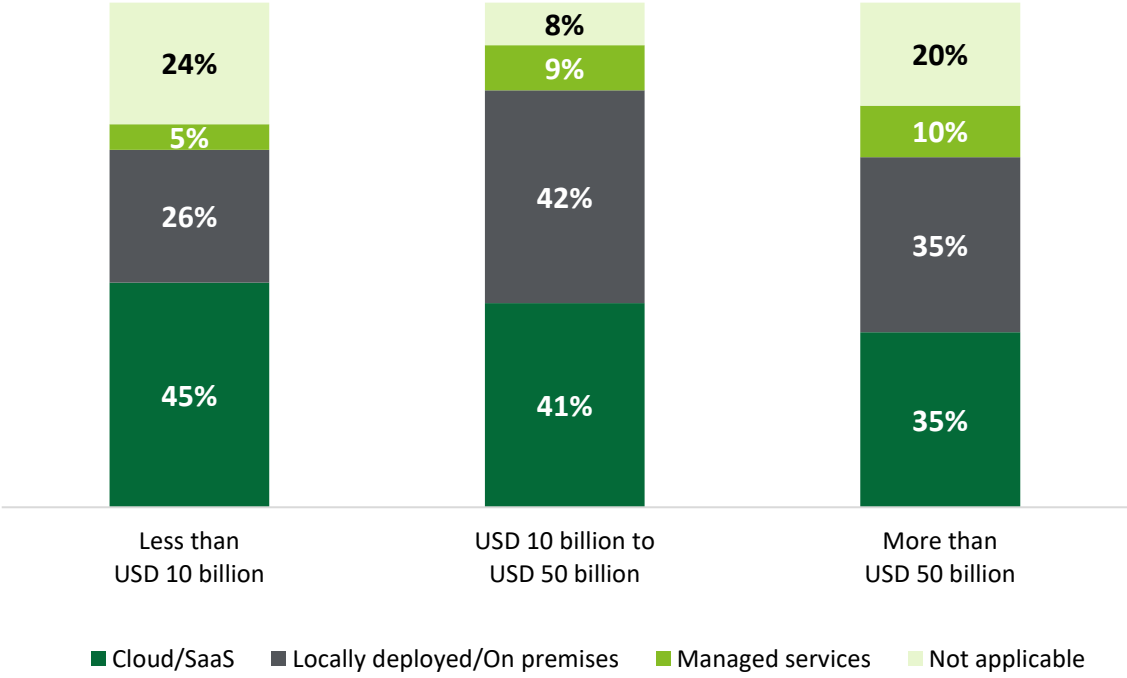
TMS deployment approach

Cloud-based technologies continue to be more frequently used by our respondents over on-premise solutions and managed services. Respondents favoring cloud-based technologies grew from **36%** in 2019 to **42%** in 2022. Accessing and exchanging data while working remotely has been critical for companies during the pandemic. This, combined with vendor investments in enhancing their cloud offerings and deploying new features through seamless upgrades, has compelled respondents to select and implement cloud-based solutions. Strengthened security is also given as a reason for choosing a cloud-based technology.

Treasury management system deployment



By revenue



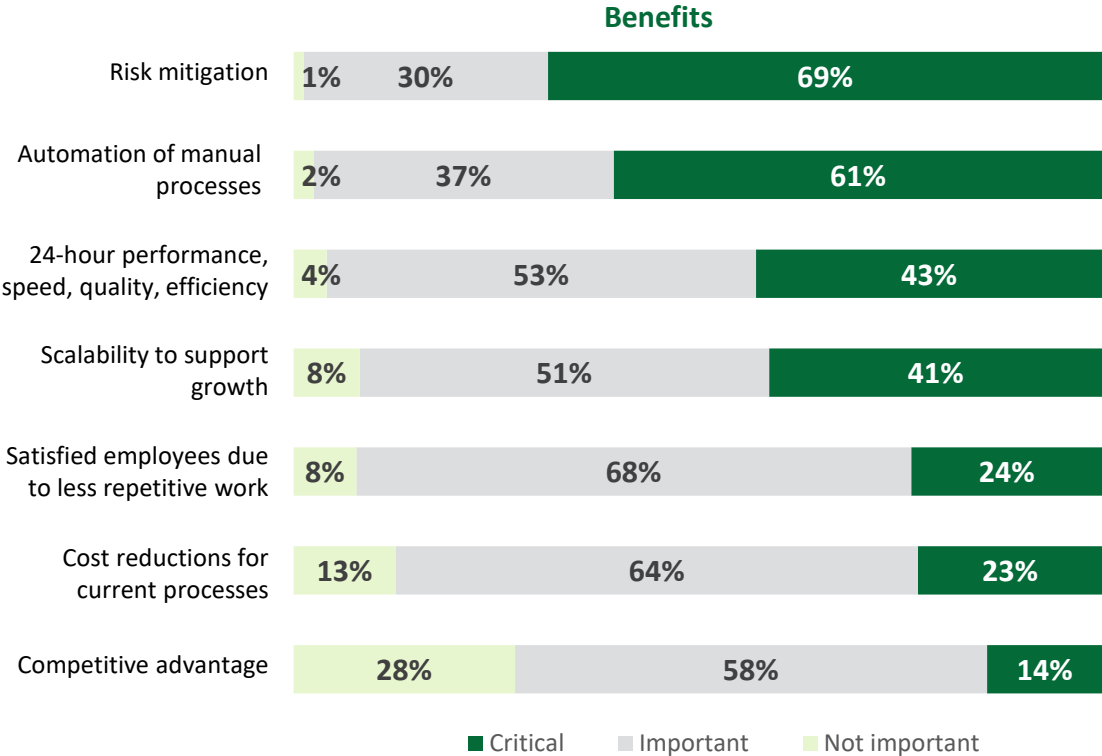
- Amongst the larger organizations, both cloud-based solutions and on-premise solutions are common. However, the trend even for these larger organizations is shifting towards cloud-based technologies.
- Cloud-based systems remain the most popular choice among organizations with annual revenue less than USD 10 billion

Benefits and challenges of adopting new technologies

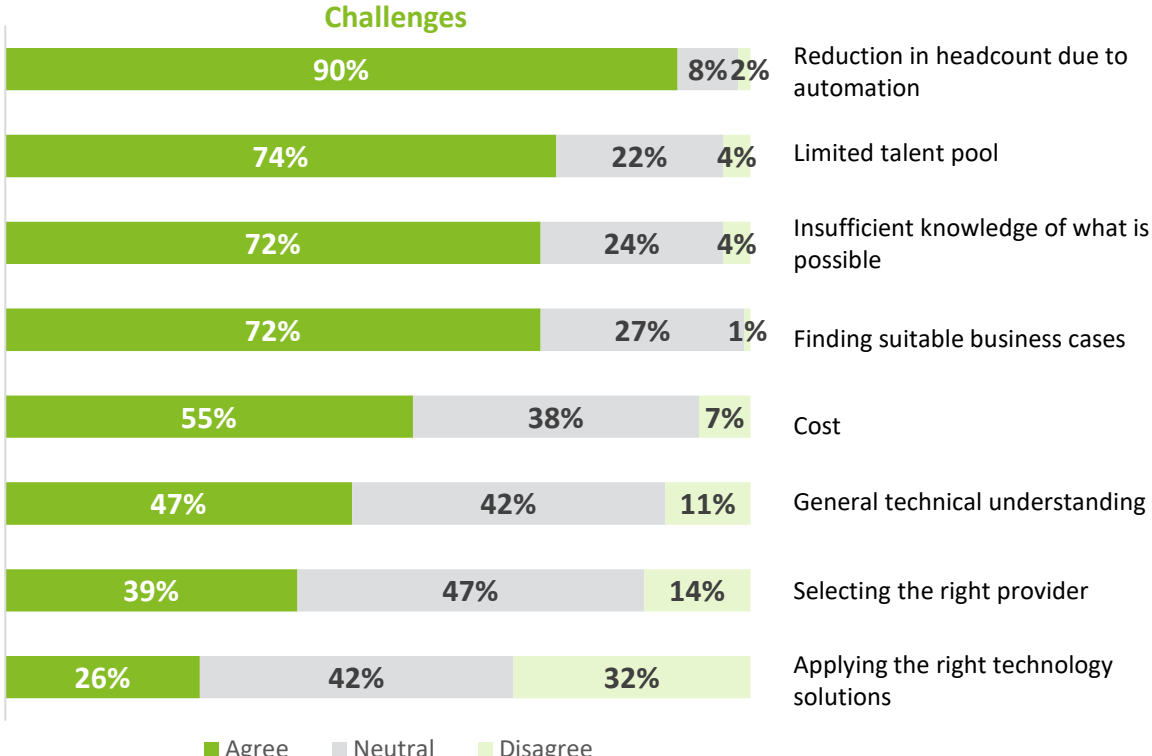
Adopting new treasury technology or replacing legacy systems can be a significant project for most companies. The business case needs to be thoroughly elaborated with tangible and intangible benefits. Across our respondents, 3 main patterns emerge: i) using technology to strengthen control and provide insightful data to mitigate risk; ii) automating treasury operations; and iii) providing access to information “On the Go, In the Know”.

While there are many benefits, challenges when implementing new technologies are felt by respondents, such as maintaining the treasury team size, internal resourcing of the project, and full knowledge of the solutions capabilities. Engaging a third party implementor such as Deloitte can help reduce the resourcing and knowledge gap, as well as enable capability enhancements through a transformative approach in a shorter timeline without impacting business as usual activities.

Which benefits do you consider to be the most important reasons for adopting technology solutions?



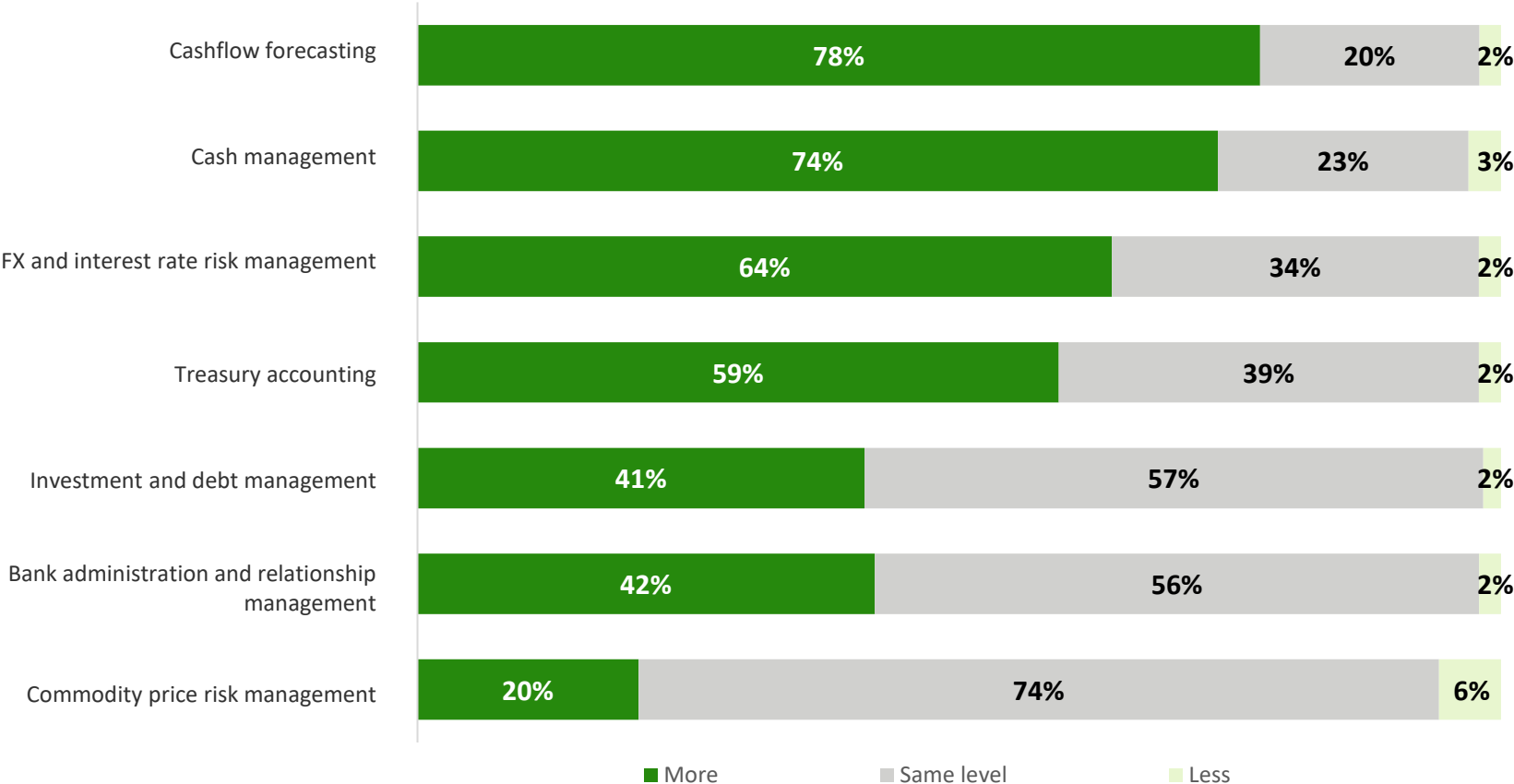
Which of the following challenges do you consider when implementing new technologies?



Automation of treasury processes

Today, most treasury operations can be automated using a TMS with connectivity and integration to third-party systems such as ERPs, dealing platforms, and market data sources. Treasury automation is shifting to real-time data exchanges (replacing previous approaches that used to be based on “batch mode” with scheduled activities). This is mainly enabled through the activation of APIs, which help improve timing and increase in the scope of data being exchanged across applications during a “Day in the life” of a treasury department.

In the next 2-3 years, which areas in treasury do you expect to become more automated?



Respondents foresee further automation in the areas of cash forecasting, cash management, FX risk management, and treasury accounting, while more complex operation such as debt, investment, and commodity management still require more frequent intervention by people.

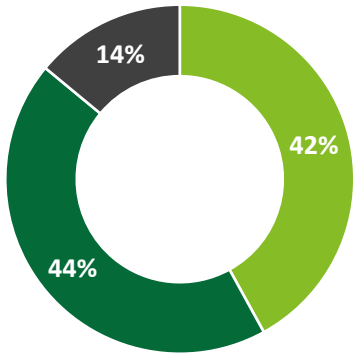
Automation brings efficiency to the treasury team members allowing them to turn insights into foresights and provides access to new data which was not available before.

Automation and cognitive will likely make it easier to get the work done, though will still require a high level of data cleansing and cross-system reconciliation and workflows.

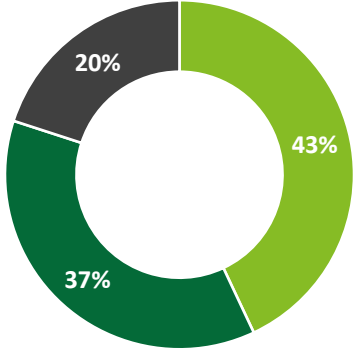
New technologies

In the last five years, there has been a considerable amount of innovation in the financial technology industry, making some new technologies accessible to organizations with direct application to treasury as well as broader finance. API technology currently has the most concrete use for treasury departments. **86%** of respondents have already implemented API or are considering it in the near future. API provides additional means for treasury to connect to their banks and turn a “prior day” view of cash into real-time or on demand.

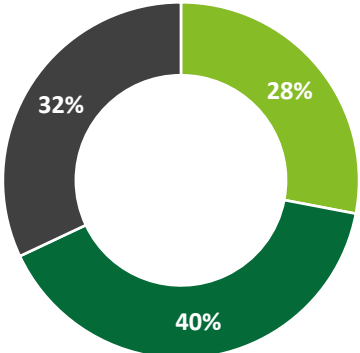
Have you already implemented any of the following technologies or do you plan to do so in the future?



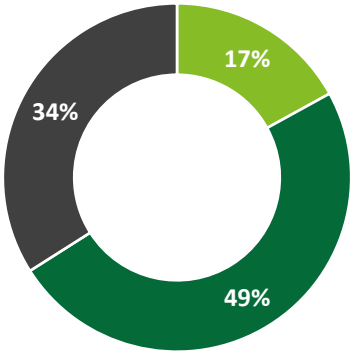
Application Programming Interface (API)



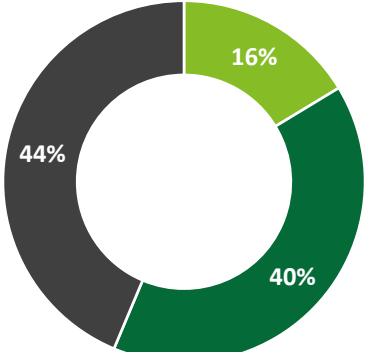
Robotics and Robotic Process Automation (RPA)



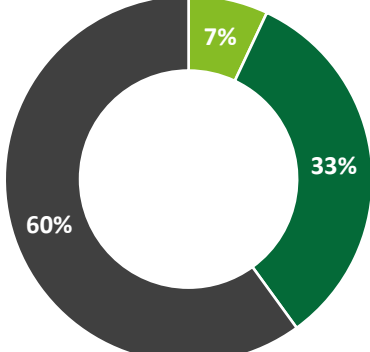
Visual Analytics



Machine Learning/Artificial Intelligence (ML/AI)



Big Data



Blockchain

■ Yes ■ No, but in consideration ■ No, not relevant for us

API also allows finance team to process instant payments end-to-end. For example: in China, banks have leapfrogged traditional connectivity channels upgrades by providing API connectivity to their customers.

We see API as an important development that will strengthen integrations with treasury technologies. The applications of API go beyond just bank connectivity to an “Open Treasury” concept.

Other technologies such as RPA and Visualization/Analytics are also getting more traction but are usually across the whole finance function and not only built out for treasury.

ML/AI are also on the radar of 17% of the organizations surveyed.

Blockchain technologies have some use cases in treasury, but organizations are continuing to evaluate them, along with digital assets and crypto.

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