



CFOs' perspective on the adoption and impact of emerging technologies
China CFO Survey 2018 Q1

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Foreword

Every six months we engage the CFO community in China to discuss the issues that are top-of-mind among those who take a financial leadership role across a broad range of corporations. In the most recent Deloitte China CFO Survey 2018 Q1, we delved into emerging technologies, an area that has given rise to a wave of enterprise-wide transformation.

Technology adoption is increasingly becoming a strategic decision rather than an operational one for companies that are looking to improve business efficiency. We specifically conducted this survey with the aim of investigating how the CFO community in China perceives different types of emerging technologies, how these have been applied to date, and what challenges our finance leaders have experienced in introducing these technologies to their operations. One of the key findings from our survey was that despite the clear benefits and at

times urgent need to adopt technology, CFOs still have difficulty getting the buy-in and the budget approved internally.

CFOs have a unique and major role to play in their organizations when it comes to technology adoption as evidenced in our survey findings. This group is well-positioned to drive an enterprise-wide strategy, and at the same time employ relevant financial data to appropriately gauge the effectiveness of technology on corporate performance.

This edition of the CFO Survey also examines economic topics, during a period in which eco-political uncertainties prevail in the global market. Our survey findings showed a divided view among participants on global economic prospects, especially in light of the plethora of risks faced at this time associated with government policies and political intervention.

We would like to express our gratitude to all the CFOs who have participated in

the survey. Your opinions and outlook on technology will help us generate valuable insights that engage the wider corporate community. The next survey will take place in Q3 2018 and I hope that you will continue to support us in this endeavor.

Our CFO Program combines the effort and expertise of Deloitte leaders and subject matter experts to examine the factors that constantly pose challenges to CFOs and their finance functions. We will continue to engage our CFO community on key subjects that can impact the financial well-being of any corporation.

We will keep you posted about other activities and events within our China CFO program that take place throughout the year. If you have any feedback about the survey, or our Program, please do not hesitate to contact us.



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Our survey

We are pleased to share with you the findings from our China CFO Survey 2018 Q1, conducted by the Deloitte China CFO Program. This survey is a regular feature that allows us to understand the sentiment within our CFO community, and to gather insights on a wide range of issues that are affecting senior finance practitioners. In the 2018 Q1 edition that was carried out throughout February and March, we received 138 responses, up 27% from our last survey. Among the participants, 96 held the title of CFO or Finance Director.

In terms of the types of companies that were represented, 83 were foreign invested or multinational, 43 were privately owned and 12 were state owned. The respondents were from companies of many different sizes spanning a range of sectors.

The diversity of participants is one of the reasons why this survey continues to be such an interesting process as it provides balanced insights into the current business perspectives in the China market and a fair representation of the sentiment.

Figure 1: Title of the respondents

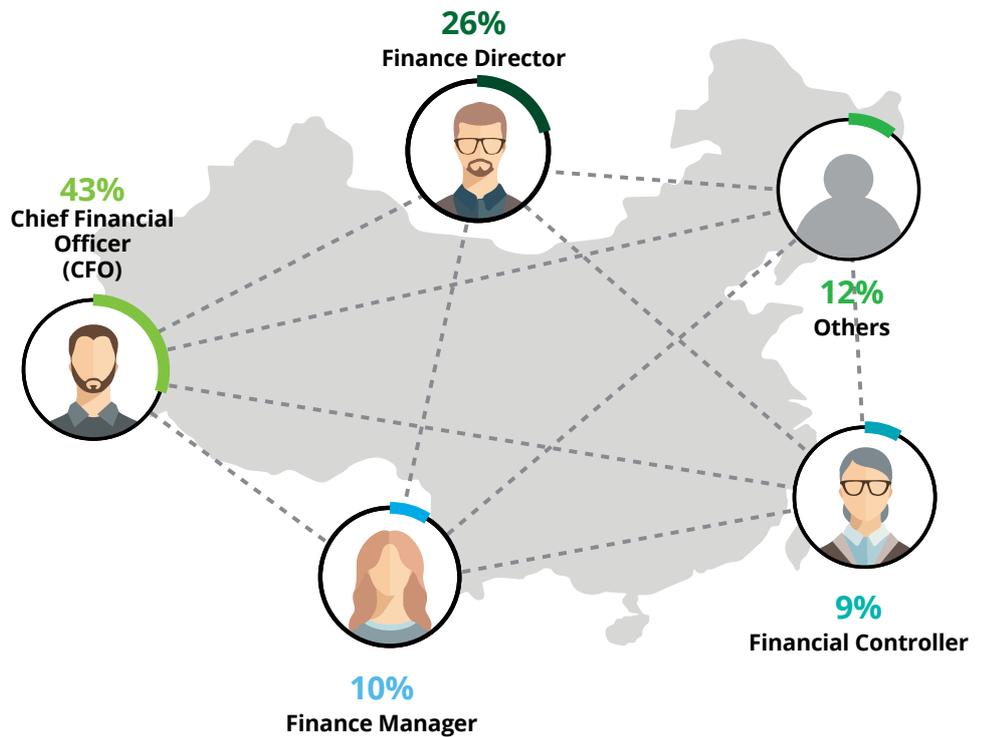
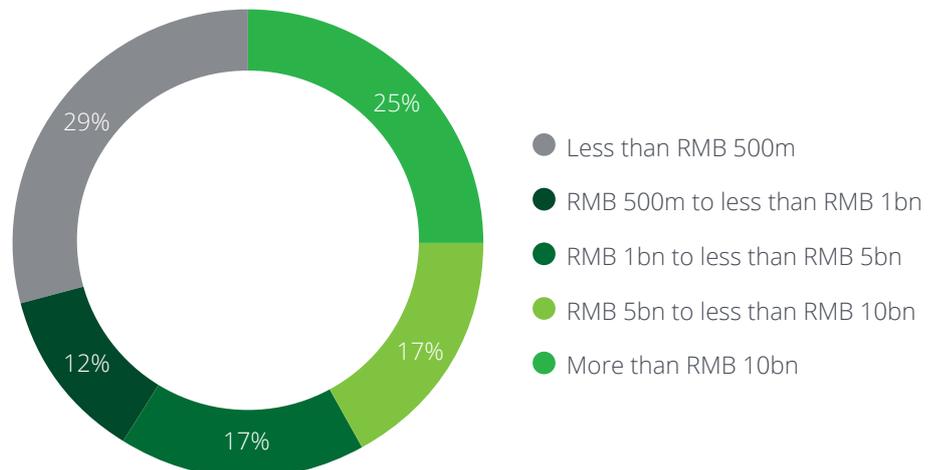


Figure 2: Total revenue of participating enterprises in the past financial year (Unit: RMB)



Economic sentiment

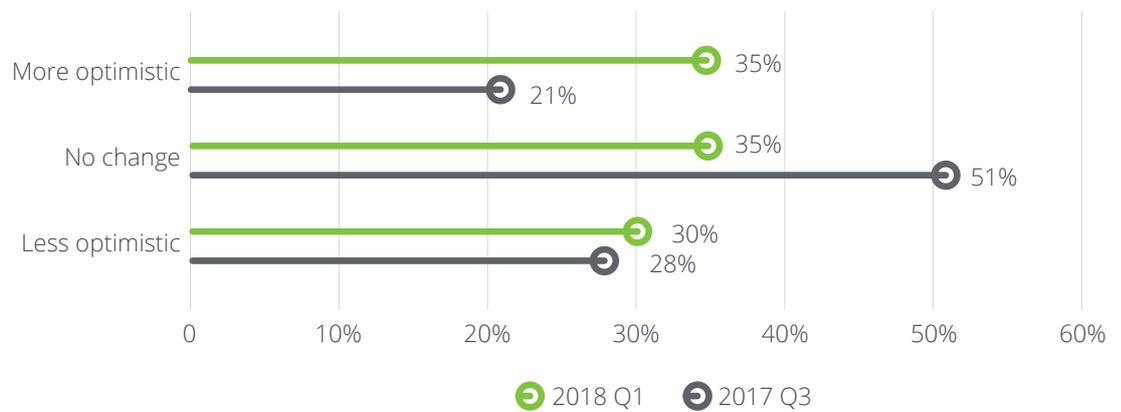


More optimism and an upbeat outlook on recovery

At the end of 2017, the global economy continued to exhibit resilience in the face of geo-political concerns. Growth in a number of countries during the third quarter of 2017 was higher than forecast, notably in Germany, Japan, Korea, and the United States. Key emerging markets, including China, have also recorded a stronger than expected economic expansion during the same period¹.

With the International Monetary Fund raising the forecast for China's economic growth at the beginning of 2018², there was an understandable upsurge in optimism in economic sentiment among respondents amid a growing bullish market outlook. Nonetheless, about one third of respondents held a pessimistic view on the economic outlook, perhaps reflecting the fast moving and unpredictable developments of global eco-political events. It is worth noting that the timing of the survey preceded the trade tension between China and the US.

Figure 3: Has your perspective towards the economic sentiment changed over the last six months

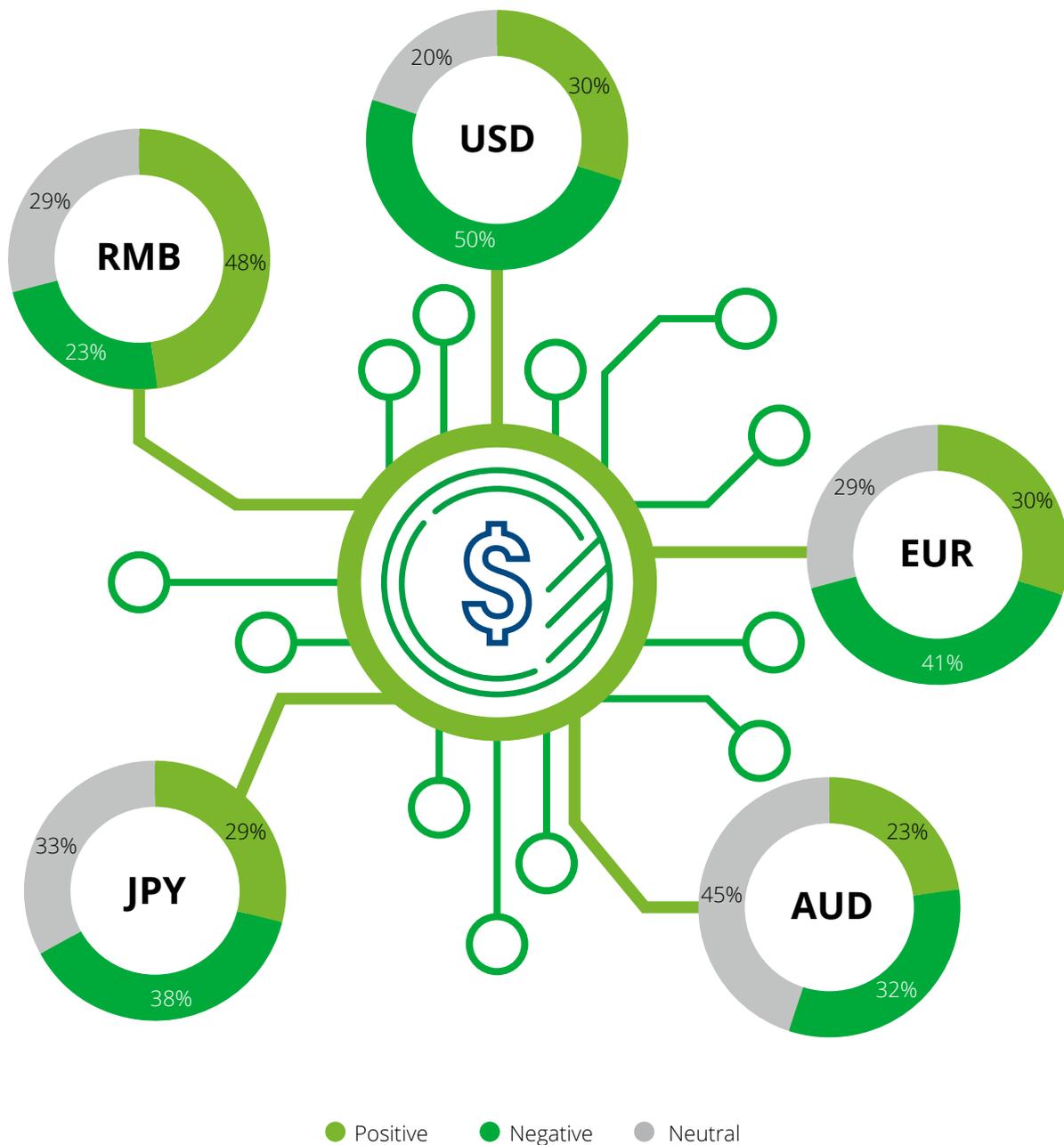


1. International Monetary Fund, <https://www.imf.org/en/Publications/WEO/Issues/2018/01/11/world-economic-outlook-update-january-2018>, January 2018

2. Xinhua Net, http://www.xinhuanet.com/english/2018-01/23/c_136918004.htm, January 23, 2018

Driven by the stable to positive outlook of the Chinese economy and evidence that the Belt and Road Initiative will continue to gain momentum, the yuan is anticipated to strengthen and gain importance within the international community. There is no clear consensus on the euro and Japanese yen. The Australian dollar, on the other hand, is perceived to remain stable in the coming six months. The US dollar is the currency that most of our participants anticipate will weaken, perhaps as a symptom of a shifting political landscape and more inward looking economic stance.

Figure 4: Performance of major currencies in the year ahead



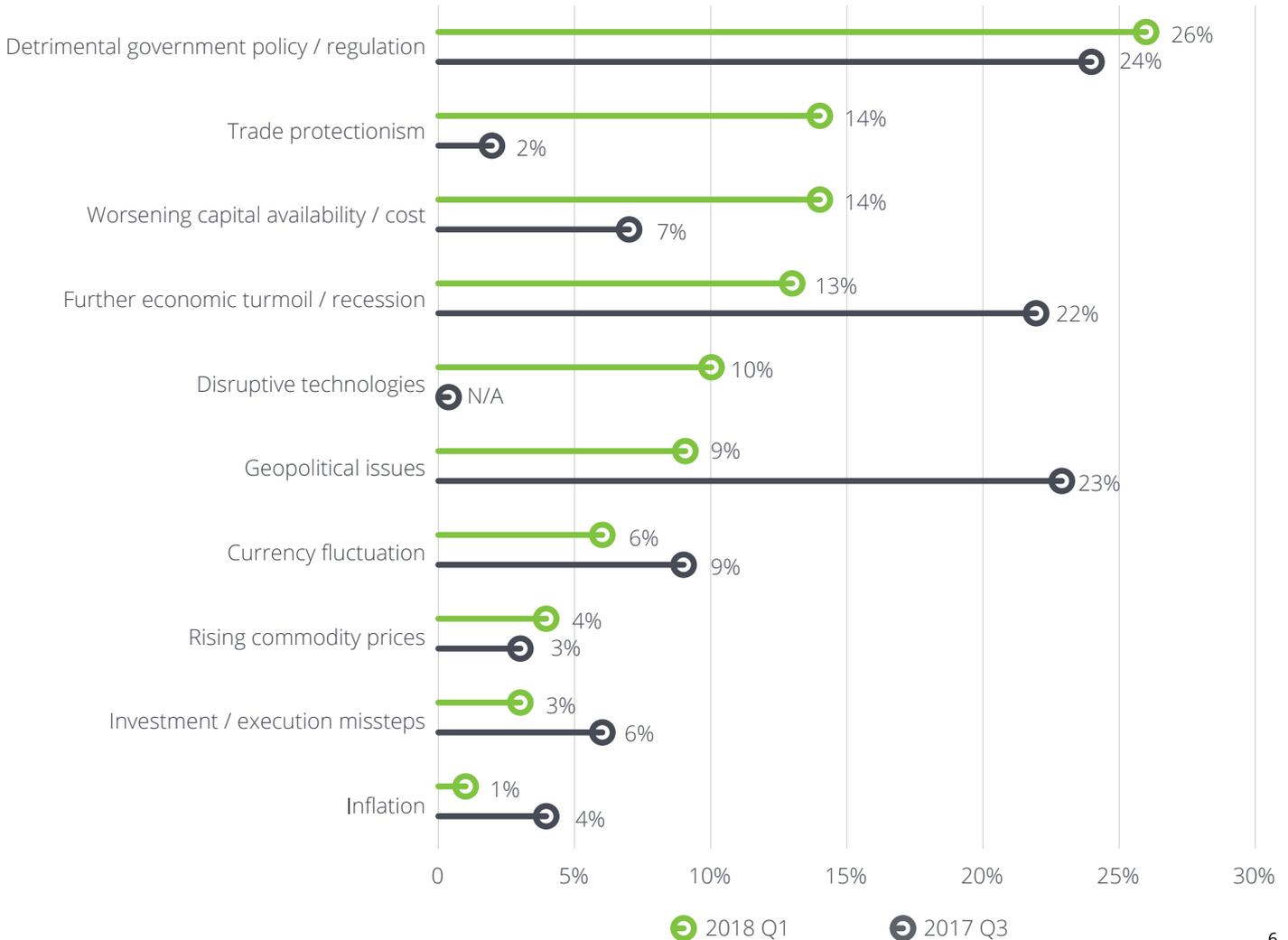
Economic uncertainty remains most high-impact risk factor

Compared with six months earlier, “Detrimental government policy/ regulations” remained the largest risk factor concerning our CFO community. Moreover, with the expected interest rate hikes from the US Federal Reserve, a growing number of respondents (15% in this survey, compared to 7% in 2017 Q3) are worried about “Worsening capital availability and cost”.

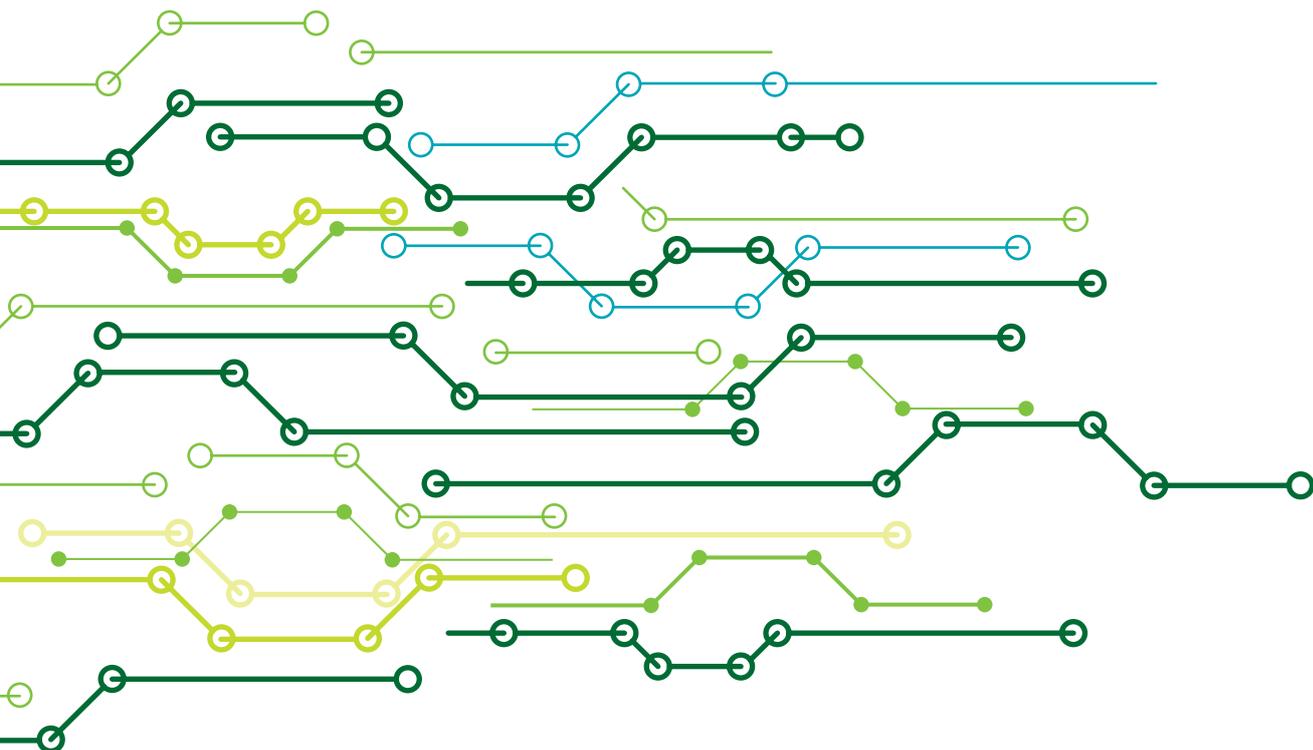
There was a major uptick in rhetoric from governments about perceived trade imbalances, especially towards the end of our survey period, and this has significantly raised concerns about trade protectionism, reflected in a considerable surge over a six month period.

As mentioned previously a particular focus for the survey was to gauge our CFO community's perspective on disruptive technologies. For the first time, we asked them to consider the level of risk brought about by “Disruptive technology”. It was ranked fifth by our respondents with 10% considering it the most high-impact risk that they currently face.

Figure 5: Potentially high-impact risk



Adoption and impact of emerging technologies



Spending on technology in China will reach US\$234 billion this year, up by 8% from 2017 as the Chinese government and enterprises invest in technologies for digital innovation and ecosystem expansion with an underlying driver towards reform. Business and government purchases of technology goods and services were estimated to grow a further 9% in 2019³.

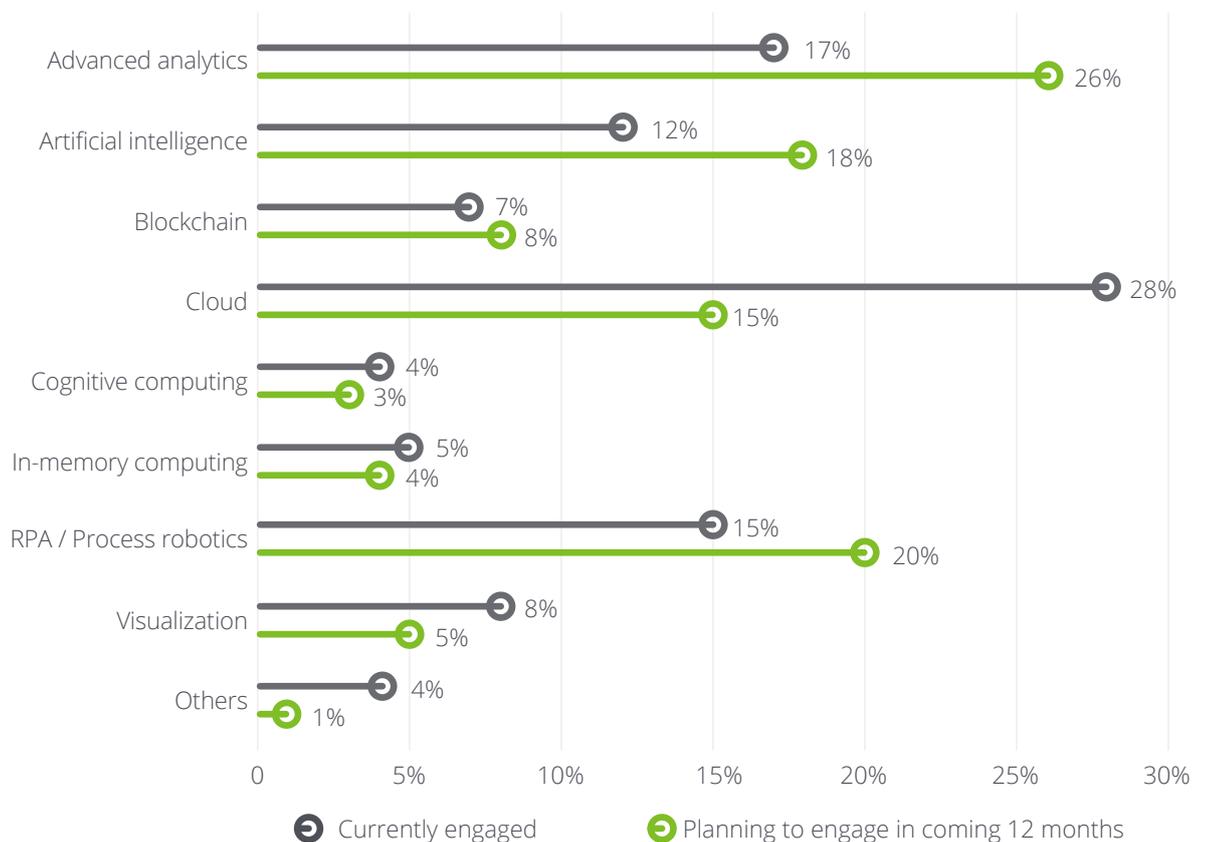
In our China CFO Survey 2018 Q1, we asked our CFO community about the current and planned technology adoption in their own organization. Understandably the level of adoption varies for emerging technologies considering the range of industries represented. However, the insights we gained from this survey had significant value given the unique role of the

finance leaders as strategic planners and users of emerging technology, as well as their perspective in evaluating the imminent and potential benefits of adopting technology with a set of financial parameters.

Current and near-term technology adoption across the enterprise

In the survey, we asked which emerging technologies our respondents' organization had employed or were planning to employ in the next 12 months.

Figure 6: Current and 12-month planned level of emerging technology engagement



3. <https://www.forrester.com/report/China+Tech+Market+Outlook+2018+To+2019/-/E-RES136752>, Forrester, January 16, 2018

“Cloud” is the most widely adopted emerging technology according to our survey findings, followed by “Advanced analytics” and “RPA/Process robotics”. However, in the next 12 months there is expected to be a shift with increasing adoption of “Advanced analytics”, “RPA/Process robotics” and “Artificial intelligence” all overtaking cloud.

This dynamic can be explained by the maturity of the technologies. Cloud is more established and has been extensively tested. It has already proved its fundamental value in the technology transformation of an organization by expanding data storage, processing and transmission capabilities and onboarding other new technologies. Developments in cloud in terms of product and services may create further impetus to demand in due course.

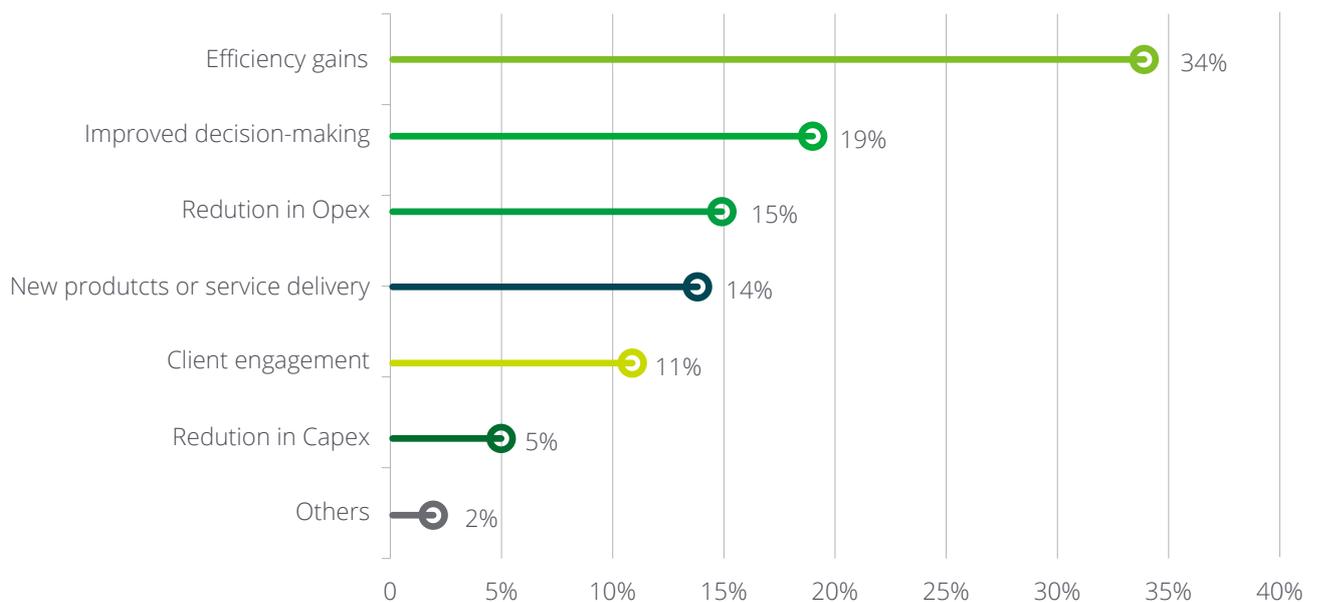
Second to Cloud, RPA and Process Robotics is and will continue to be a

focus area for CFO's. This aligns with the market view that many companies are embarking on proof of concept and pilot programs to understand the true benefits of the technology to the processes and functions before large scale implementation. Uptake of cognitive technologies remains low which likely represents the relative immaturity of the technology when compared with RPA. Cognitive tools essentially mimic human judgement and can "learn" through experience. There are significant opportunities in the future for cognitive tools to take on the more complex judgement based processes currently undertaken by finance teams.

Drivers for new technology adoption

Improving efficiency, decision-making process, and reducing operating expenses were chosen by our respondents as the three main strategic drivers for new technology adoption in their company.

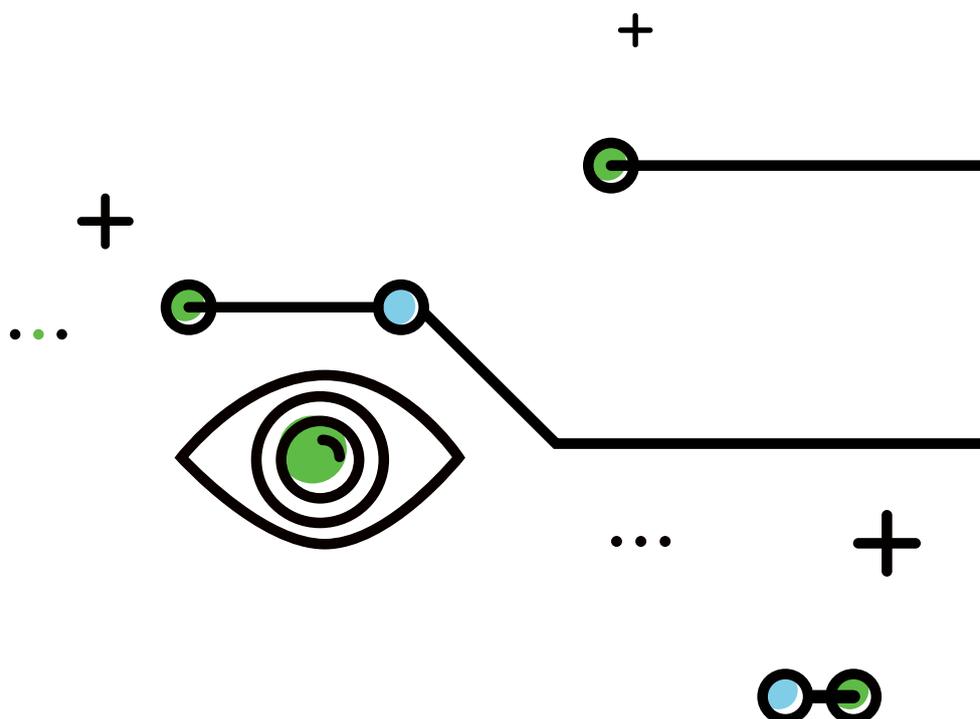
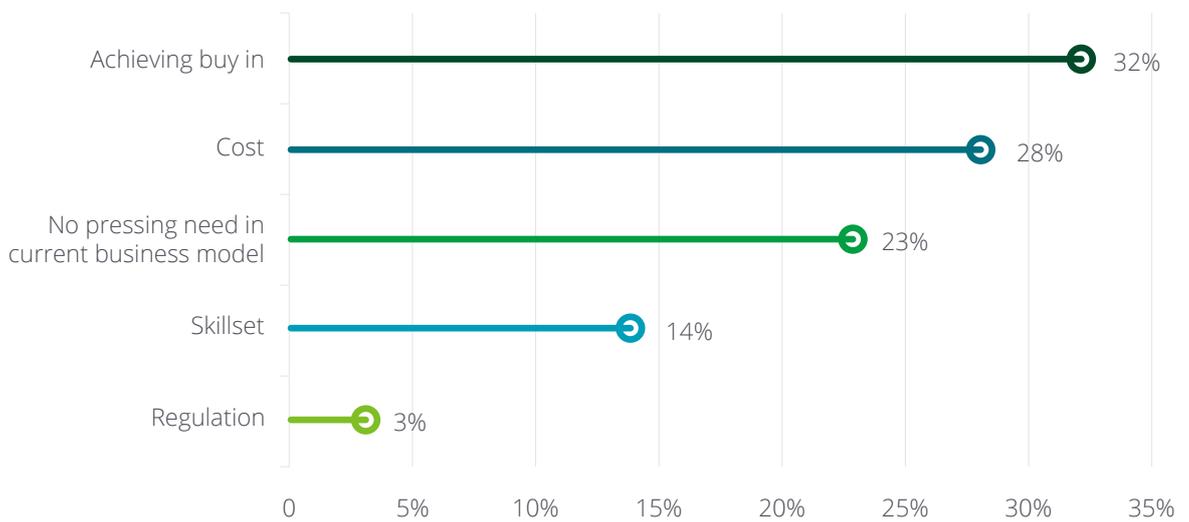
Figure 7: Strategic drivers for new technology adoption



Despite knowledge of these strategic drivers for adoption and positive impact, our CFO community still find it hard to achieve buy-in internally. Cost concern is a significant factor hindering new technology adoption. Another point worth highlighting is that about a quarter of the respondents said the key factor that slows new technology adoption was

because "There was no pressing need in the current business model". Both of these considerations could reflect a shorter-term perspective to decision-making rather than considerations about future-proofing businesses.

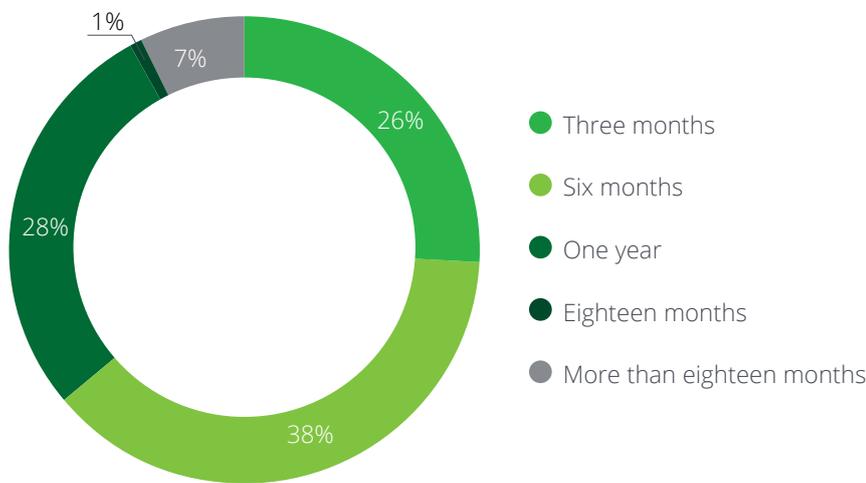
Figure 8: Key factors that slow new technology adoption



Moreover, 92% of the respondents said the decision-making process for adopting and investing in a new technology was between three to 12 months, with 28% taking 12 months. Against the lightning speed of

technology advancement, the period of time taken in decision-making, followed by an even longer time in actual implementation means that companies are potentially increasing risk through missed opportunities.

Figure 9: Decision-making process on adopting and investing in a new technology



The findings suggest some obstructions in terms of decision-making and adoption of new technologies. While there is a prevailing consensus on the importance of technology as a catalyst to transform the business, there are challenges to the actual introduction and implementation of new technologies in the organization.

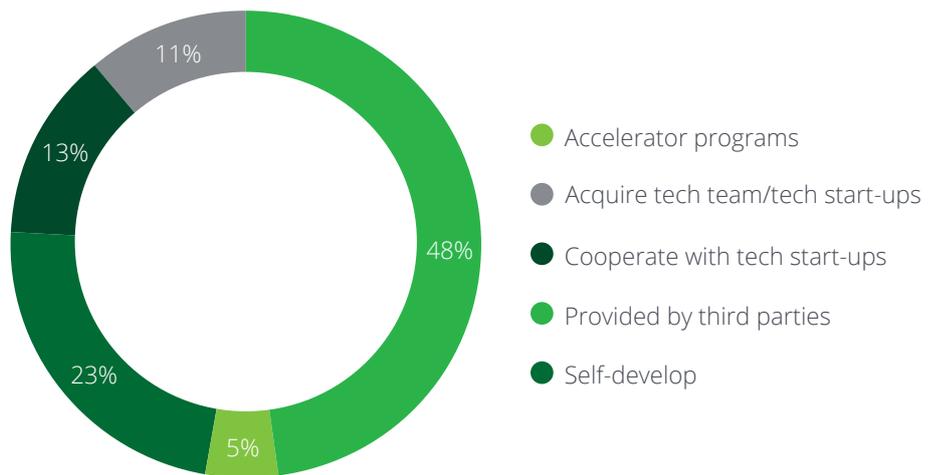
As finance leaders, our CFO community has a unique role to engineer a technological transformation by playing an important role as the "influencer", in shaping corporate strategy and business operations, as well as setting the budget and determining success indicators. The Finance function itself is well positioned to adopt and "trial" many of these technologies themselves and leverage that success as a platform for enterprise level change.

Buy, build or partner?

Nearly half of the respondents said that their new technologies are provided by third parties. A quarter of the respondents' companies developed the technology proprietarily and 13% chose to cooperate with tech start-ups. While this is consistent with the bigger trend of how organizations acquire new technologies, as emerging technologies continue to specialize, the pressure on

cost and time to deliver may require companies to explore other models of cooperation. Over time it would seem likely that there is a clear split between those companies that want to bring more in-house to strengthen their competitive advantage and those that see the benefit of buying in the specialization.

Figure 10: How does your company acquire new technology?



Emerging technologies and the finance function

In the survey, we investigated how emerging technologies are specifically applied in the finance function.

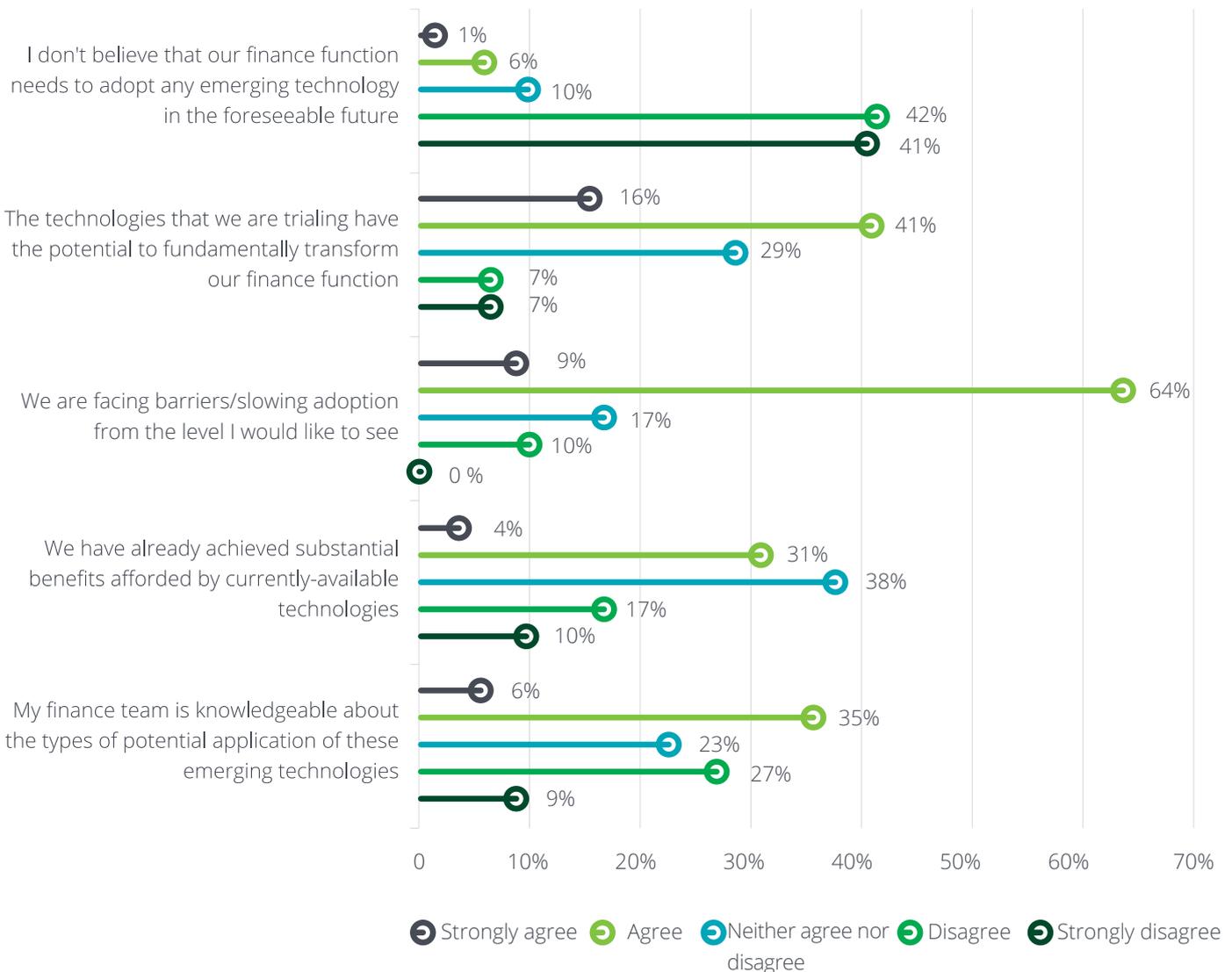
Respondents are divided in their views on their team's knowledge of potential applications and ability to evaluate the opportunities. More than one third believe that their team has limited knowledge of the various emerging

technologies available, the opportunities that apply to finance and the potential benefits that could be achieved. Views on the benefits of the currently available technologies are also divided.

Emerging technologies by definition are new and it takes time for people across the board to comprehend the benefits that may arise, but training and exposure will help staff to properly use the technology and allow the benefits of those technologies to surface. This again points to the value in partnerships with the requisite expertise at the nascent stage.

An overwhelming number of our respondents agree that adoption of technology either faced barriers or progressed at a slower rate than they would like to see. As previously mentioned, CFOs have a unique role in influencing an organization's approach to the adoption of technology and to ensure the appropriate environment for an effective implementation.

Figure 11: How would you characterize your company's application of emerging technologies to your finance function



Wider and more aggressive adoption

More than half of the respondents believe that the technologies they are trialing have the potential to fundamentally transform the finance function with 68% agreeing that between 50-100% of finance processes will be significantly altered by technology in the next 5 years. Changes will predominantly be seen in technology enhancing process efficiency, being applied in analytics, reporting, forecasting and budgeting.

87% of CFO's surveyed agreed that they need to be more proactive in embracing new and emerging technologies, which will help to manage increasing cost pressures, complexity of demands from the business and uncertainty in the economic and regulatory/policy landscape.

Figure 12: How many of your processes could be significantly altered by technology in the coming five years

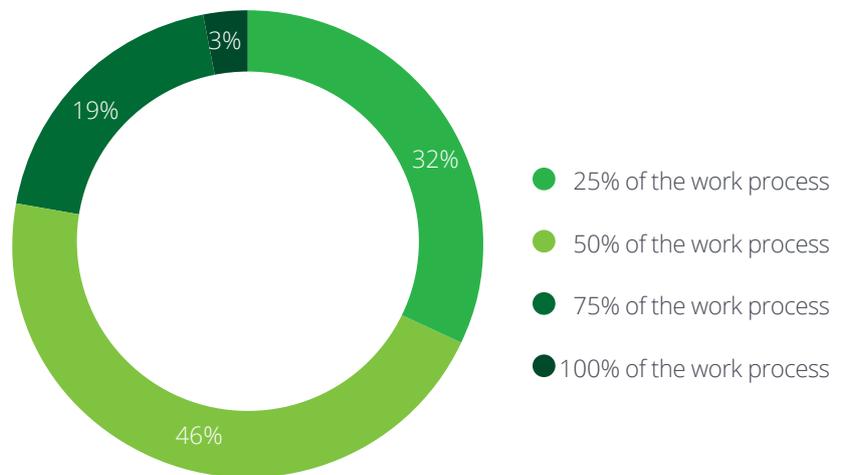


Figure 13: To what extent will new technologies affect the finance function in the following areas

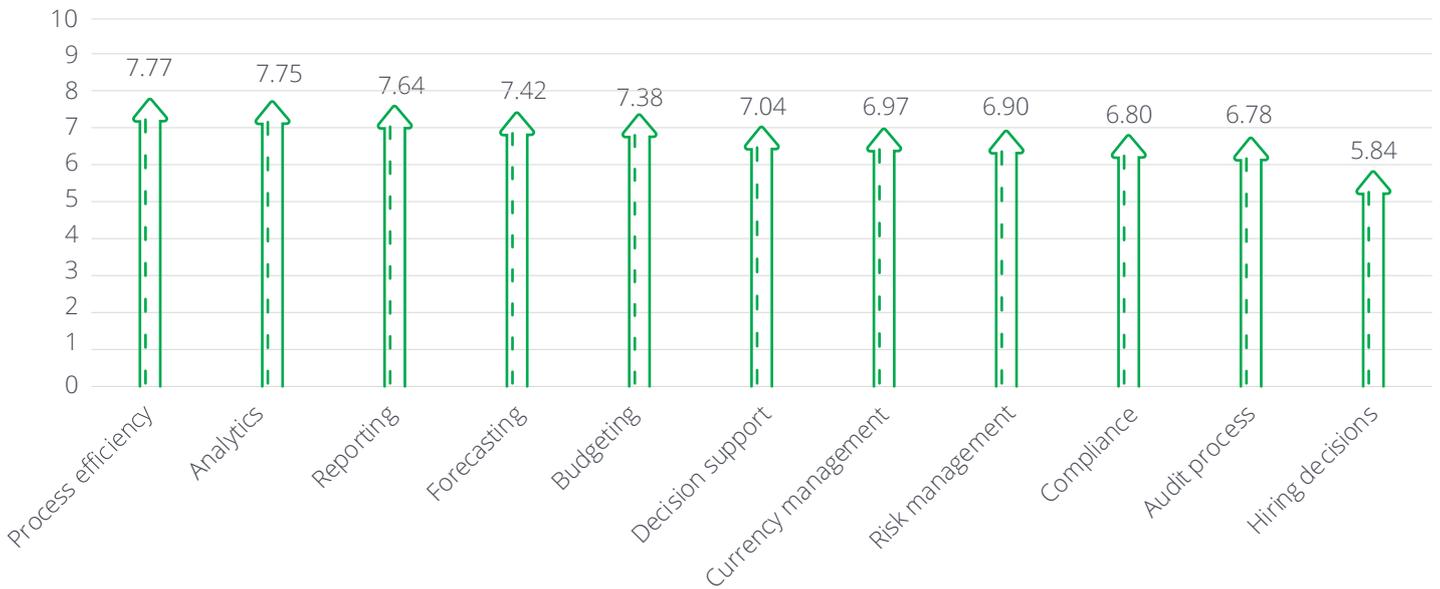


Figure 14: What are your finance department's top three challenges



A regular question we ask across our surveys is for our respondents to consider the top challenges for the finance department they are leading. In the 2018 Q1 survey the top challenge remained "Providing metrics, information and tools needed for sound business decisions". Linking this back to other parts of the survey, this is likely the primary driver for CFO's to increasingly leverage advanced analytics; in order to provide critical inputs into business decisions.



Conclusion

Examining the adoption and impact of new technologies within our CFO community provides an interesting perspective. As mentioned throughout this report, finance leaders assume a unique role in driving the strategy of adopting emerging technologies, ensuring successful implementation and evaluating the value technology will bring to their organization.

It is encouraging to see that our finance leaders are generally receptive to new technologies and recognize the transformative effect these technologies will potentially bring to their organization, as well as their department.

Despite this, CFOs still face internal barriers, such as obtaining buy-in and convincing the other decision-makers of long-term returns on investment. These barriers hinder the process of adopting the necessary technologies at faster pace that CFOs would like to see.

CFOs must take on the responsibility for being the advocates and catalysts for change by driving strategic planning as well as creating the processes to manage implementation and measure success. This will ensure the benefits are realized throughout the organization and companies can stay ahead of their competition.



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We would like to thank all participating CFOs for their support in completing the Survey.

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China CFO Program brings together a multidisciplinary team of Deloitte leaders and experience professionals to help CFOs stay ahead in the face of growing challenges and demands. The Program harnesses our organization's board capabilities to deliver forward thinking and fresh insights for every stage of a CFO's career – helping CFOs manage the complexities of their roles, tackle their company's most compelling challenges, and adapt to strategic shifts in the market.

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